

# small air forces observer

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April 2009

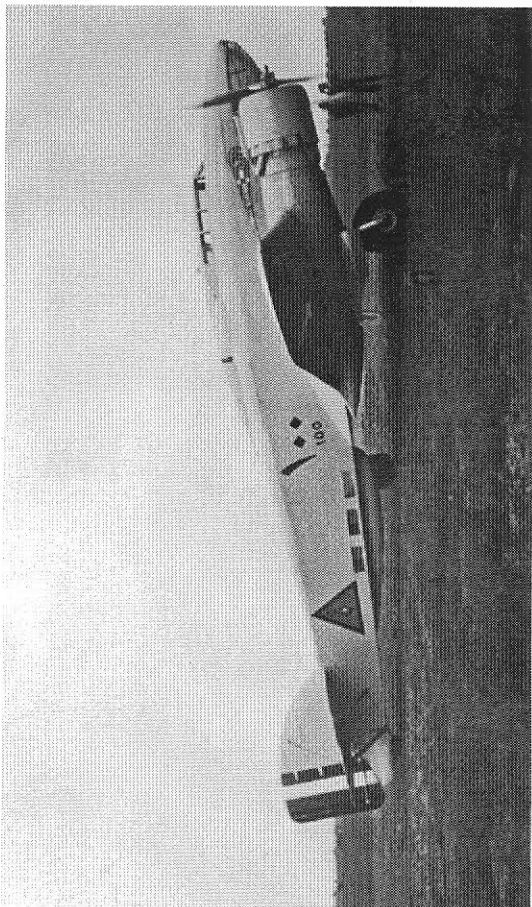
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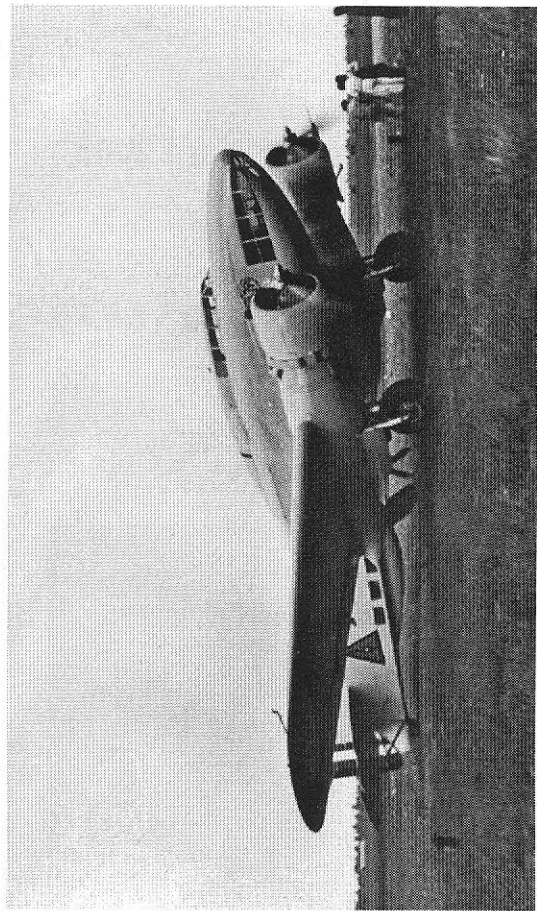
**Lockheed Hudsons for the Chinese Air Force during WW II**  
**North American T-6 in Congolese Service (Part 1)**  
**Paraguayan Air Force Convairliners**  
**Italian Wings over Iraq (1937-1941)**  
**The Hellenic Bristol Fighters**  
**Nationalist Chinese MiG-15**

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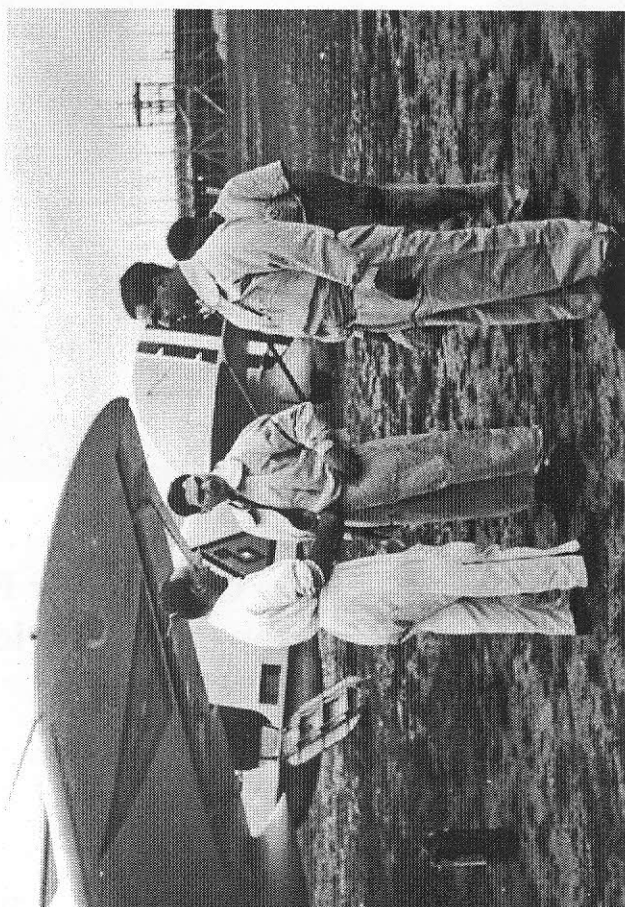
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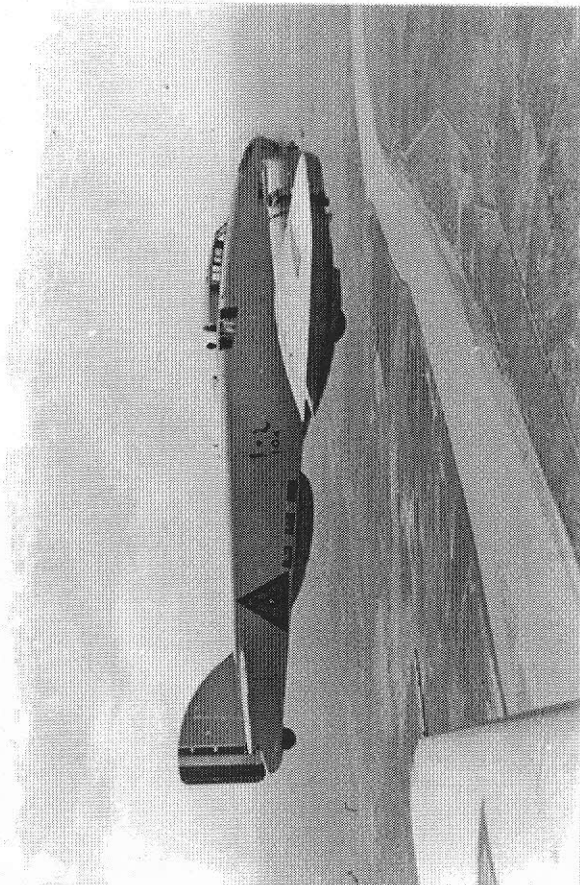
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# SMALL AIR FORCES OBSERVER

## The Journal of the Small Air Forces Clearing House

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**SAFO EDITORIAL POLICY:** The purpose of the Small Air Forces Clearinghouse (SAFCH) is to "promote interest in the history and modeling of the aircraft of the smaller countries". In support of this goal, the SAFCH encourages international cooperation in researching aviation history, both military and civil, from all periods of time, and for all the smaller countries. The results of this research are published in our quarterly journal, the Small Air Forces Observer (SAFO). Articles published in SAFO can be reprinted provided permission of the author is obtained and the SAFO is identified in the reprint.

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**SAFCH WEB SITES:** Our new website <[www.safch.org](http://www.safch.org)> is just about ready to take off. On this site you will be able to see, in color, those photos that had to be printed in SAFO in black and white. You will also be able to chat with other members. Also, see our Small Air Force IPMS/USA Special Interest Group (SIG) web site at <<http://hometown.aol.com/rotorfrank/SmallAirForce.html>> for photos of models by the members.

**COVER PHOTO:** 9T-P37 (the former H221) was one of the Congolese T-6s used in the Kwilu operations in the spring of 1964, here flown by Cuban pilot Ernesto Peyno. The aircraft is equipped with French machine gun pods and also a new radio (note aerial in front of canopy). At this time, the T-6 did not carry any markings on the fin or rudder. (Via René García)

**IN MEMORIAM:** It is my sad duty to report that long-time SAFCH member August 'Augie' Blume (SAFCH #922) died peacefully at the University Hospital in VA on Friday 6, 2009. Augie was a great friend of the SAFCH frequently offering moral and financial support in times of trouble. He will probably be best remembered for his research on Russian aviation in the First World War. He will be greatly missed.

## AUSTRALIA

**AUSTRALIAN PLASTIC MODELLERS ASSOCIATION** (APMA, PO Box 51, Strathfield, NSW 2135; 4 issues airmail A\$40. International payment is best handled via Paypal at [iansharyn@bigpond.com.au](mailto:iansharyn@bigpond.com.au)). Web Site: [www.apma.org](http://www.apma.org).

**3-08** (28 pages) Wartime color photos: Japanese Ki-45 (3). "Qantas Liberators and DC-4s" 2 pages with 6 photos. "Mystery Aircraft" 4 pages on "civil" He 111J including profile drawings of 2 Spanish and one French a/c. "Balkan Air Operations - NDH Aircraft." 6 pages including profile drawings of Croatian Fi 156, Bu 181, DFS 230 (Luft), Bf 109G (2), BH-33E, Do 17E, & Do 17Z (Luft). "Piper L-18 in 1/72 Scale" one page on converting the KP L-4 to a L-18 with a drawing of the needed changes. "High Altitude Me 410" 3 pages including 3 profile drawings and sketches. Non aviation article include: "Ocean Going Monitors" and "Berliet V4DB Armoured Car".

**4-08** (28 pages) Wartime color photos: Japanese Ki-45 (1) & Ki-44 (2). "TAA Convair 440 VH-TAS" 4 pages with 9 photos. "Vickers Valiant in Australia" 10 pages including 4 profile drawings, top & bottom plan views, and 6 photos (5 in color). Korean War Sea Fury" 4 pages including side and bottom view drawings, and 5 photos. "Frazer-Nash Gun Turrets" 2 pages with 3 photos. Non aviation articles include: The Mark V 'Male' Tank" and "China River Gunboats - Part 3".

## AUSTRIA

**ÖFH NACHRICHTEN** (Oesterreichische Flugzug Historiker, Pfenninggeldf 18/2/14, A-1160 Wien. Write for free sample.)

**4/08** (40 pages) "Gründung der ersten Flugpostlinie" 11 pages including 10 photos. "Focke-Wulf A 16, A 17 Möwe, A 20a Habicht" 2 pages including 4 photos. Color photos: Austrian Turbo Porter and EF-2000 Typhoon.

## BELGIUM

**KIT** (IPMS Belgium, c/o Michel Willot, dreve de Champagne 14, B-1190 Bruxelles; French & Flemish. International Postal Money Order for \$30 for 4 issues.

**#152 4/2008** (52 pages) "Tony Kawasaki Ki-61" 5 pages on building the 1/32-scale Hasegawa kit including 10 photos of the model. "C-160 Transall" 5 pages on building the 1/72-scale Revell kit including 17 photos of the model. "Bf 109K-4" 6 pages on building the 1/32-scale Hasegawa kit including 10 photos of the model. Non-aviation articles include: "Jeep Minerva TT" 3 pages on building the 1/35-scale Roy Models kit including 12 photos of the model and a 9-page walk-around with 74 photos.

## FINLAND

**FINNISH AIR FORCE SIG**, c/o Nils R. Treichel, Gustav-Adolf-Str.16, 27404 Zeven, Germany. Entirely in English.

**No. 27** (7 pages) "Of letters and Numbers" 2 pages on Finnish serial systems; e.g. F1, C.57/18, 1D445, 8E1, and finally FR-76. "Flatfootfloggies" one page on the dimensions of the standard Finnish a/c ski for each a/c type. "It's a Moose, it's a Reindeer, No" One page review of the AZ Models Hawker Hart. "Rumble on the Waves" one page on building the Pegasus Rumpier 6B1 floatplane in Finnish markings including a 3-view drawing. Also, a plan-view drawing of a Finnish Learjet left over from a previous issue. [Ed: This unpretentious little newsletter contains more information than any glossy magazines four times its size.]

**MALLARI** (IPMS Finland, PL 798, 00101 Helsinki 10; 6 issues \$20.00, no check accepted due to the high redemption costs). Text in Finnish.

**40<sup>th</sup> Anniversary Issue** (40 pages) "Hunting-Percival P.66 Pembroke" 9 pages including 23 photos of Finnish Pembrokes including color photos of details of museum a/c as well as numerous sketches of details. "Il-28 Reconnaissance plane and target tug plane" 10 pages including 20 photos of Finnish Il-28 including color photos of details of museum a/c and 4 pages of scale drawings. Non aviation articles include: "Comet Tank", "MLRS Rocket Launcher", and "Submarine Veaikko".

**#173 4/2008** (20 pages) "Finnish Air Force Il-28" 4 pages of 1/72-scale multi-view drawings showing the differences between the Il-28 bomber and the reconnaissance Il-28R. The rest of this issue is devoted to results and photos of the 2008 IPMS Finnish Nationals.

## FRANCE

**AVIONS:** Toute l'Aéronautique et son Histoire (Lela Presse, 29 rue Paul Bert, 62230 Outreau, France. 50 euro for 6 issues).

**#167 Janvier/Février 2009** (72 pages) "Le Polikarpov I-153: Deuxième partie: variants diverses et débuts au combat (Khalkhin-Gol)" 14 pages including 21 photos, color cover painting, 4 color profile drawings, 4 side-view drawings of variants, and 2 pages of scale multi-view drawings. "Reconnaissance à vue et appui-feu en Algérie: L'EALA 1/71 1956-1957: 2<sup>e</sup> partie)" 10 pages including 18 photos and a color 2-view drawing (SIPA 111A). "Douglas TBD-1 Devastator (2<sup>e</sup> partie)" 20 pages including 35 photos (3 in color), 3 color 2-view drawings, and 12 color profile drawings. "Les Heinkel 111J en Turquie" 6 pages including 18 photos. "Le Circuit Européen de 1911" 7 pages including 28

photos. "Info Maquettes et Livres" 2 pages of reviews (9 books and 4 kits).

## GERMANY

**FLIEGER REVUE EXTRA** (Verlag Fliegerrevue, Herrn Detlef Billig, Oranienamm 48, D-13469 Berlin. 4 issues per year, \$66 surface. Payment by check drawn on German bank)

**#23 Novmbrrt 2008** (116 pages) "MiG-21 im Einsatz, Teil 2: naher Osten und Afrika" 19 pages including 61 photos and 13 color profile drawings [Algeria, Iraq, Iran, Israel, North Yemen, South Yemen (3), Libya (2), Somalia, Sudan, & Syria]. "Grönland Militär- und Zivilfliegerei" 34 pages on Danish, Nazi German USAAF aviation in Greenland from the earliest time to the present including 93 photos, a map showing the airbases on Greenland, color drawings of 3 survey ships (Danish, USCG, & Nazi Germany, and 4 color profile drawings (Danish Do-Wal & B-17; Luftwaffe Do 26, and Canadian Canso). "Rote Asse über Nordkorea" 14 pages on Red Aces over North Korea including 23 photos (mostly personnel, but also North Korean Yak-18, and South Korean Tachikawa Ki-9) and 10 color profile drawings [MiG-15 (8), F-86E, & F9F-5]. "50 Jahre Königlich Malaysische Luftstreitkräfte" 16 pages on the history of the Malaysian Air Force including a table listing all aircraft type, number obtained, serials, & period of use, and 44 photos. "Die Kiwi-Luftwaffe" 22 pages on the history of the RNZAF including a map, and 56 photos.

## ITALY

**JP4 Menslie di Aeronautica e Spazio.** Via XX Settembre, 60-50129 Firenze, Italy. Email: [jp4@dueservice.com](mailto:jp4@dueservice.com). Website: [www.ediservice.it](http://www.ediservice.it).

**Dicembre 2008** (100 pages) Color photos: Saudi Arabian Typhoon; Argentine Sikorsky UH-3H; Pakistani JF-17 Thunder; & Namibian Falcon 900B. "Noble Ardent 08" 6 pages including 17 photos (Turkish and Portuguese F-16, and Greek Mirage 2000). "25 anni di Tornado tedeschi" 4 pages with 11 photos. "Incidenti Militari" 2 pages including 5 photos (RAAF Hawk 127; Lebanese Gazelle; South African CASA 212 Aviocar; and Taiwanese S-70C & AIDC F-CK-1B). "Recensioni" 4 pages of reviews (13 books).

**Gennnaio 2009** (100 pages) Color photos: RAAF P-3 & C-130; Norway C-130J; and Portugal C-295M. "Secondo C-27J alla Lituania" one page with 3 photos. "Airshow China 2008" 8 pages including 23 photos (JH-7, J-10, J-8, & H-6U.) "Cruzex 2008" 6 pages including 18 photos (Brazil Mirage 2000, F-5, & AMX, Venezuela F-16, Uruguay A-37 & IA-58, and Chile F-5). "Northern Viking 2008" 4 pages including 10 photos (Norway



F-16 & Iceland F.27). "Immagini da Kiev Zhuliany" 2 pages with 7 photos of Antonov a/c. "Deutsche Technikmuseum" 4 pages including 10 photos. "Incidenti Militari" one page including 3 photos (Israel Magister, Sweden Gripen, & German CH-53G). "Recensioni" 4 pages with reviews of 13 books.

**Febbraio 2009** (100 pages) Color photos: Bulgaria & Nigeria G.222; Dominican Republic Super Tucano: Thai EJ135; and Afghanistan Mi-8. "La JATF at Heart" 4 pages on Italian a/c in Afghanistan including 8 photos. "Slow Mover Intercept" 4 pages on Italian F-16 including 6 photos. "In volo con le 'Volpi' genivesi" 4 pages on Italian NH500 helicopters including 5 photos. "Immagini de Gostomel" 2 pages with 9 photos of new Anantov airliners. "Incidenti Militari" 1½ pages including 5 photos (Mexico Lancair, Polish Mi-24, Philippine UH-1H, & Peru Beech Bonanza). "Recensioni" 4 pages of reviews (13 books).

## NETHERLANDS

**MODELBOUW IN PLASTIC** (IPMS-Nederland, c/o Luuk Boerman, Kerkstraat 2, 2471 AP Zwammerdam. E-mail: lucasb@normadblend.nl.

**5/2008** (40 pages) "Republic RF-84F Thunderflash" 6 pages on building two 1/48-scale Heller kits in Dutch markings including 13 photos of the models under construction and completed. "Azur/FRROM 1/72 IAR 39" a one-page kit review with 2 photos of the completed model. "Airfix 1/72 Gloster Meteor F.8" one page kit review. "Euro Scale Modelling 2008" 6 pages of photos. Non aviation articles include: "Panzer Power" and "Trumpeters 1/25 American La France Eagle fire pumper".

## POLAND

**LOTNICTWO** (Krzysztof Zalewski, ul Grochowska 306/310, pok. 206, 03-840 Warszawa. E-mail: [kz@magnum-x.pl](mailto:kz@magnum-x.pl).)

**10/2008** (100 pages) Color photos: Finnish F-18; Saudi Arabian AH-64D; and Jordanian F-16. "Czech international Air Fest 2008" 2 pages including 8 photos (Spanish CASA C-295M; Belgian C-130H & Seaking Mk.48; Czech Mi-35; French Alpha Jet; Romanian Jak-52TW; and Yugoslav Galeb G-2). "Wystawa Hidroawiasalon 2008" 4 pages including 9 photos (Russian amphibian Be-200, A-40/42, & A-50). "McDonnell F-2B Phantom II (cz.II)" 12 pages including 19 photos. "Transport lotniczy w Polsce w okirwsie miedzywojennym" 8 pages including 12 photos [Farman F-70, Junkers F-13 (4) & Ju 52, Fokker F-VII/1M), Lockheed L-10A Electra & L-14H Super Electra, and Douglas DC-2). "Lightings w rejonie Morza

Srodziemnego cz.II: 15.Armia Powietrzna" 9 pages including 16 photos and 5 color profile drawings. "Nocny atak na U-booty" 3 pages including 11 photos (Polish Wellington). "Muzeum w Peenemunde" 3 pages including 9 photos (V-1, V-2, and East German MiG-17F, MiG-21PMF, MiG-23, Su-24M4, An-2, Mi-2, & Mi-8). "Jan Konski (1914-2008)" 3 pages including 6 photos (Polish Wellington). **11/2008** (100 pages) "Szkolenie polskich pilotow na F-16" 8 pages on Polish F-16 including 15 photos. "30. Kaszubska Eskadrs Lotnicza" 4 pages on Polish Navy An-28 Bryza including 11 photos. "MiG-21F-13 (cz.I)" 8 pages including 18 photos (all Soviet) and 3-view drawings of Je-2 and Je-5. "Afrika Aerospace & Defence 2008" 8 pages including 20 photos of South African AF a/c. "Polsko-ukrainakiej 1918-1919" 12 pages on a little-known war including 24 photos (Polish LVG C.VII, Brandenburg C.I & C.I, Albatros C.X & C.XII, Oeffag C.II, Fokker E.V/D.VIII, Hannover CL.II, and Ukrainian Nieuport 17 & 24) and 5 color profile drawings [Brandenburg B.I & C.I, Oeffag C.II, & Fokker E.V (2)]. "Operacja 'Pedestal' (cz.I)" 9 pages on Malta relief convoy including 18 photos (some of the best carrier action photos I've seen), 3 color profile drawings [Fulmar & Sea Hurricane (2)], and order of battle listing number and type of a/c on each carrier and their Italian and Luftwaffe opponents by unit and type of a/c.

**12/2008** (100 pages) "MiG-21F-13 w sluzbie polsko-syryjskiej" 7 pages on Polish Mig-21 sent to Syria including 16 photos, table of a/c sent, and 2 color profile drawings (one Polish and one Syrian). "Lotnictwo Wojsk Ladowych" 9 pages on Polish AF helicopters including 21 photos. "Operacja 'Pedestal' (cz.II)" 8 pages including 16 photos of Axis a/c, table of Axis a/c shot down, list of Allied merchant and warships participating, and 4 color profile drawings (Ju 88A, SM.79, CANT Z.1007, & He 111H).

**Numer Specjalny 6** (92 pages) This issue celebrates the 90<sup>th</sup> year of the Polish Air Force with chapters on each of the current PAF units. There are a total of 88 large photos of a/c (F-17, MiG-29, Su-22M, C-295M, An-26, An-2, TS-11, M-28, Mi-8, Mi-2, Jak-40, Tu-154, PZL-130, Bell 412, etc.) Also covered are ground equipment, radars, and missile systems. [Ed: I found it unsettling to see MiG-29 carrying the famous Kosciusko badge. However it does suggest a theme for the modeler: A series of aircraft carrying the Kosciusko badge starting with an Albatros (Oeffag) D-III of the Russo-Polish War, a P-11c of the September Campaign, a Hurricane of the Battle of Britain, and concluding with a MiG-29. This would be a sure winner of the "collection" trophy at the next contest.]

**Numer Specjalny 7** (100 pages) This issue is devoted to heavy bombers. "PZL-30/LWS-6 Zubr" 10 pages including 14 photos and a multi-view scale drawing. "B-17 nad Filipinami." 10 pages on B-17s in the Philippines on 8 December 1941 including 24 photos. "Petlakow Pe-8" 13 pages including 20 photos, two 4-view scale drawings, and 5 color profile drawings. "Amerykanska ofensywa bombowa przeciwko japonii w latach 1944-1945" 15 pages including 23 photos and 5 color profile drawings of B-29. "Bombowce strategiczne III Rzeszy" 13 pages on the Luftwaffe's strategic bomber program including 21 photos and four 4-view scale drawings (Me 261, Me 264, Ju 390, & Ju 488). Articles that deviate from the theme are: "Lightning nad Polnocna Europa" 14 pages including 20 photos and 5 color profile drawings. "Japonakie jednosilnikowe samoloty torpedowe" 12 pages on the history of Japanese torpedo bombers including 20 photos and 4 color profile drawings (IMT1M triplane, B5N2 Kate, B6N2 Tenzan, & B7A2 Ryusei). "Tadeusz Wieslas Koc (1913-2008)" 5 pages including 7 photos and 2 color profile drawings (P-11c & Spitfire).

## USA

**IPMS/USA JOURNAL** (IPMS/USA, PO Box 2475, North Canton, OH 44720-0475 USA. Six issues per year: In USA: \$25 for adults (18 and older) and \$12 for juniors (17 and younger); Canada & Mexico \$30; all other \$32.)

**January + February 2009 - Volume 21, Number 01.** (72 pages) "The Story of Jim Ashford and Okole Maluna". The story of a 9<sup>th</sup> AF P-71D including color profile drawings and decal sheet (125 mm by 112 mm) with markings in 1/72-, 1/48-, and 1/32-scale. [Ed. This magazine and decals are available to the first reader who sends \$3 to cover the cost of postage in the US.] "Building a 1:48-scale vacuformed BT-1". "Building the rare and coveted Aerodynamix 1:32 Buccaneer". "Converting a 1:72 Canberra T.17 with Resin Parts". "Building Eduard's latest offering in the world of Focke Wulf 190s".

**WWI AERO** (PO Box 730, Red Hook, NY 12571. Website:

[www.worldwar1aeroplanesinc.org](http://www.worldwar1aeroplanesinc.org). E-mail: [subscriptions@worldwar1aeroplansinc.org](mailto:subscriptions@worldwar1aeroplansinc.org).

Online Form: [www.aeroform.org](http://www.aeroform.org). 4 issues \$42.00 USA).

**#200** (128 pages) In celebration of their 200<sup>th</sup> issue, this is a collection of articles and editorials selected from the previous issues. Contains nothing of interest on the small air forces.

# Italian Wings over Iraq (1937-1941)

Part 1  
Giancarlo Garello

[Editor's note: This article is the first part of an article that initially appeared in the January-march 2006 issue of the late lamented Italian magazine, *Aero Fan*. It is reproduced here with the permission of Giorgio Apostolo, their editor. The second and concluding part will appear in the next issue of SAFO.]

In the thirties, Italian aviation had achieved undisputable prestige throughout the world thanks to a series of aeronautical feats which had fired the enthusiasm and aroused the admiration of international public opinion. On the wave of fame acquired by Italian aviators, numerous foreign governments turned to Italy for the modernization of their air forces. The worsening of the global political situation accelerated this process, that gained for Italian aircraft manufacturers significant export orders. An indication of this is exemplified by the statistics for the year 1937 when the Consorzio Italiano Esportazioni Aeronautiche (AEROCONS) supplied to 18 foreign countries 421 aircraft plus engines and accessories to a value of 577,834,000 Lire. In 1938 aviation related exports to the value of 447,473, 000 Lire were achieved, and in 1939, on the eve of Italy's entry into the war, they exceeded one billion Lire (1.149.440.000).

Among the orders received in 1937, were 15 Breda 65, 5 SM.79B, and a Saporiti hangar, total value 25,112,000 Lire, for Iraq. In the following year Iraq ordered engines, spares, parachutes, and munitions to the value of 4,797,000 Lire, and in 1939 they made further acquisitions of bombs, ammunition, spares, and stores at a cost of 3,241,000 Lire. Besides the benefits, both economic and prestigious, in a sector in which international competition was particularly, the penetration of the Iraqi market was of extraordinary political significance considering that it was achieved in a geographical area traditionally associated with the British sphere of influence.

After the dissolution of the Ottoman Empire following its defeat in the First World War, Iraq,

which had been a province of the old empire, was placed under British Mandate until 1927. On gaining independence in 1937, the royal government signed a mutual assistance pact with Great Britain that gave the RAF permission to operate from the airfields at Shaibah and Habbaniya. Nevertheless, despite the formal relationship of the alliance, in some Iraqi military circles anti-British sentiments were fermenting. The aspiration of liberating the nation from foreign domination was in part shared by King Ghazi I. In April of 1937, the chief of the Royal Iraqi Air Force (RIAF), Col. Jewad, visited Europe on a purchase mission intended to revitalize the fleet of the Air Force. At that time the material of the RIAF was a decidedly outdated miscellany of British-manufactured aircraft (DH Dragon, Dragonfly, and Dragon Rapide, Hawker Audax-Nisr, Avro Anson, and Tiger Moth). Col. Jewad, who professed open sentiments of admiration for Italy, visited aircraft manufacturers in Italy, Britain (where 15 Gloster Gladiator fighters were ordered), and Germany. Eventually his major interest was concentrated on two technically-advanced Italian aircraft: the Breda 65 assault aircraft and the SIAI Marchetti S.79B bomber.

## **SIAI SM 79B for the Royal Iraqi Air Force**

At the beginning of April 1937, the Iraqi aviation delegation arrived at SIAI Marchetti where it was able to closely observe the second prototype (n. 3510) SM.79B, fitted with Fiat A80 RC4I engines. The impression gained by Col. Jewad was positive, and brought the immediate start of informal negotiations for the supply of four aircraft, with options for up to ten more. The request to install Bristol Pegasus engines as an alternative to the Fiat was rejected by SIAI who advanced a counter proposal for six aircraft with the A80 version, despite the inconveniences that were still afflicting this engine.

On 10 and 11 June, the plenipotentiary minister



of Iraq and the delegate councillor of SIAI, Luigi Capé, signed a contract relative to the acquisition of five SM. 79B/A80 twins, with the first delivery to be immediate, a second after 30 days, one after 90 days, and the final two after between 120 and 150 days. On the same day the purchase was formalized for 15 single-engine Breda 65 attack aircraft and 25 Fiat A80 engines necessary to equip the two types of aircraft.

On the eve of the departure for the Middle East of the first SM.79B, Col. Jewad completed without difficulty his type conversion onto the aircraft. After a series of dual flights with company test pilot Passaleva, the officer expertly passed his check out following a solo take-off on 6 July. On the following day, the aircraft, which carried the insignia of the Iraqi Air Force and the individual serial 100, took off from Cameri with a crew comprising commander Jewad, Sergente Maggiore motorista Bosio and company rigger Maffezzoni. In accordance with international law, no weapons were installed and the sole military equipment permitted on board was the Jozza bomb sight.

The delivery flight followed the route Belgrade, Istanbul (with a technical stop in Turkey for refueling), Aleppo, and Baghdad, concluding on 9 July after more than 10 flying hours without the slightest fault developing. The arrival in Iraq of the first modern bomber for the IRAF was abundantly publicized with the presentation of the machine to the highest military and civilian authorities. On 15 July King Ghazi I sampled a flight in the aircraft, being fully satisfied. Unfortunately, on the 19th, in front of the eyes of the Iraqi Chief of Staff, General Bekir Sidqi, and a group of officers who had just disembarked, SM.79B serial 100 stalled on landing, perhaps due to overloading, and landed heavily, resulting in severe damage to the undercarriage and propellers.

The sense of frustration felt by the leaders of the Arab air force was extreme, as the pressure from their former British 'masters' to abandon the acquisition of Italian aircraft had never slackened. The operation to recover the crashed aircraft, conducted with the collaboration of RAF personnel, caused further damage, and induced Col. Jewad to request the manufacturer to conduct the repairs. The incident caused disquiet in Italy, and on the

insistence of Galeazzo Ciano, Gen. Valle became involved in ordering the accelerated dispatch of the second aircraft. At this point an unexpected development risked compromising the entire operation: In mid-August the Chief of Staff Gen. Bekir Sidqi and Col. Jewad were assassinated of a bloody coup that resulted in the return to power of the pro-British faction. The new Air Force Chief of Staff, Col. Mushtaq, was not slow in showing reservations. He proposed cancellation of the SIAI twin in favor of other combat equipment. The Italian Air Force, the SIAI, and the Consorzio were united in their determination to oppose any attempt to modify the clauses of the contract. In March 1938, the Iraqi government declared itself willing to confirm the order for four SM.79B, requesting in addition the assistance of Italian technical personnel (pilots and mechanics) and the return to serviceability of aircraft 100.

At the manufacturer, work recommenced on the four examples still on order. These received slight modification to the dorsal defensive position and the forward cockpit glazing. Between October 1937 and January 1938, the aircraft, serials 101, 102, 103, and 104, were flown by test pilot Passaleva and Tenente Bertotto, who had been appointed as instructor pilot for the Iraqis. The behavior of the Iraqi authorities aroused suspicion in the SIAI management, and they delayed the completion of the aircraft until summer 1938. Only on 20 July, did the Consorzio, assured of the good intentions of the purchaser, declare them ready for delivery, and informed the Ministero that military crews should be assigned for the delivery flights.

Finally, on 8 October 1938 the four SM.79B departed the Lombardy heartland for their destination, Baghdad. On board aircraft 101 were mission leader Tenente Bertotto with Major Aziz and NCOs Mercalli and Scapparone, while at the controls of the other aircraft were Tenenti Niggi, Persico, and Magri assisted by the Iraqi pilots Capt. Naqib, Capt. Abadi and Lt. Yahia. SM.79B 104 also carried SIAI technician Cheloni, to whom we owe the credit for many of the exceptional image which illustrate this article.

The delivery flight followed the route Malpensa, Catania, Tripoli, Benghazi, Amsear, Cairo, Heliopolis, Baghdad. It was a routine flight

apart from some minor problems that were repaired in route. The arrival in formation over the capital was triumphal, and the crews received a warm welcome from the Air Force Chief of Staff and the Sovereign.

Ten. Bertotto quickly initiated an intensive training program to qualify the Iraqi pilots who were used to the slow biplanes of the previous generation. The difficulties in flying the new and fast bombers from Italy initially encountered by the aviators of the RIAF were gradually overcome. In a period of six months, some fifteen Iraqis had been checked out on the new twin. However, because of the level of training of the local personnel, the type remained an extremely demanding aircraft.

On 28 September 1939, the first SM.79B, serial 100, finally returned to full serviceability by SIAI, was delivered to Baghdad by a crew comprising company pilot Algarotti, Tenente Guza (who had previously instructed Iraqi pilots on the Breda 65), flight engineer Maffezzoni and radio-operator Sacco. It entered into service with the "Savoia" bomber squadron.

### **Breda 65 in Iraqi colors**

As we have already reported, the negotiations conducted on 10-11 June 1937 between the Italians and Iraqis also resulted in the purchase of 15 Breda 65/A80 assault aircraft for the RIAF. These were to be delivered in two batches: three aircraft, of which two were to be in dual-control configuration, by 31 August 1937, and the remaining 12 by the 30th of the following month. Despite the insistence of Col. Jewad that the original Gnome Rhone K14 engines, or license-built K14 produced by Isotta Fraschini, be installed, the choice fell on the FIAT A80, as the neither of the two versions of the K14 were available (the IFK 14 version was furthermore subject to an export ban). Behind this decision lay a badly-concealed effort to favor Fiat whose BR 20 bomber, not too dissimilar in characteristics to the competing SM.79B, had been excluded from the negotiations.

The changes at the top of the Iraqi armed forces after the violent death of Gen. Bekir Sidki also brought hostility to the order for the Breda 65 from the new leaders. They tried to renegotiate the agreement, offering as an alternative the purchase

of armored fighting vehicles. AEROCONS decidedly opposed this solution, insisting that the contract be fully respected.

During the acceptance trials conducted at Bresso airfield, two accidents occurred. One involved Breda 65 c/n 64097 that suffered light damage. The other accident occurred on 2 March 1938, when c/n 64084 crash landed off the airfield following an engine failure. The aircraft was destroyed, but fortunately the pilot, Ildebrando Artigiani emerged unscathed. The Ministero authorized the replacement of the crashed example with one diverted from a batch of 80 Breda 65 under construction at Caproni Vizzola.

On 26 March 1938, the first group of 10 Breda arrived in Basrah following a sea voyage that lasted 13 days. Transport to the airfield at Rashid near Baghdad required another month due to the flooding of the river Tigris. The final five aircraft reached the capital on 30 June. In the meantime, the team sent by Breda, composed of Tenente Rodolfo Guza and a rigger, engine mechanic, and armorer, immediately set about the assembly of three aircraft, one of which was dual control. In the month of July, Ten. Guza made some demonstration flights, including a visit to the private airfield of the King who closely examined the new aircraft.

The assembly of the 15 Breda 65 continued at a slow rate, because the technical personnel were also involved in ensuring the serviceability of the aircraft in use for training flights. In addition, the decision to replace all the A80 engines with others of the same type but with pressure lubrication involved the mechanics in a true tour de force.

In November, Ten. Guza began conversion training for five Iraqi officers, with four achieving solo take-off after 37 hours of dual instruction. In a report of January 1939, the Italian instructor reported on the excellent performance of the local pilots who were seriously applying themselves to low level and formation flying. In the first two months of 1939, another three lieutenants completed conversion without accidents. On 27 February, three Bredas flown by Iraqi pilots were featured in a flypast over Baghdad on the occasion of the state visit of the heir to the throne of Persia, Prince Reza Pahlevi.



Tenente Guza's detachment to Baghdad lasted three months longer than expected, exceeding one year interrupted by a brief return to Italy to participate in the delivery by air of SM.79B serial 100. During his 15-months duty with the Iraqi Air Force, the young officer delivered a highly capable performance. He gained the trust of the local authorities and the respect of the British, who never missed an occasion to assign him a difficult task. Despite this, Ten. Guza cultivated social relationships, developing many friendships, one of which was with the RAF's Chief Adviser, Wing Commander Cullay. During a demonstration flight with the British officer on board, Ten. Guza made an off airfield emergency landing with no injuries to the two occupants. On another occasion, the two colleagues arranged a simulated air combat that saw the Breda 65 prevail over the more agile Gloster Gladiator.

Only one fatal accident, caused by a stall at low level, disturbed the routine training activities. Tenente Guza was finally repatriated in May 1940, on the eve of Italy's entry into the war.

The state of war between the Western democracies and Nazi Germany did not put any obstacles to commercial activities between Italy and Iraq. However, the Anglo-Iraqi treaty put a stop to any further military orders. One of its clauses stated that priority in the assignments of contracts should be granted to Britain who in turn was obliged to supply the same type of material in a shorter timescale. An Italian offer of 15 Ro 37 was strongly opposed by the British who managed

to exclude those officers most in favor of the purchase of the Italian aircraft from the commission established to select the material.

During a meeting on 12 April 1939, the Iraqi Minister of War assumed a singularly anti-Italian position, asserting that it was necessary to boycott Italian products in retaliation against Fascist aggression in Albania. As a consequence, the Italian position hardened and they threatened to terminate the supply of indispensable spare parts and accessories for the SM.79B and Breda 65.

On 1 April 1941 premier Rashid Ali al-Ghailani, well-known for his anti-British sentiments, supported by ultra-nationalist Generals, overthrew the legitimate government and declared himself head of a government of national defense. He declared its prime objective was the expulsion of the British from the nation. This would be a difficult objective to achieve, as His Majesty Government had no intention of abandoning those territories considered vital to the war effort and to the survival of the Empire itself. In expectation of a violent British reaction, the Iraqi military leaders quickly turned to Rome and Berlin to solicit a supportive intervention.

The Italian government considered it opportune to respond to the appeal, and ordered the Stato Maggiore Esercito to evaluate the request for aid received from Baghdad through the local Regia Legazione Italiana. With much greater efficiency and speed, Germany set about establishing an air bridge to supply vital aid to Mesopotamia.

*To be continued*

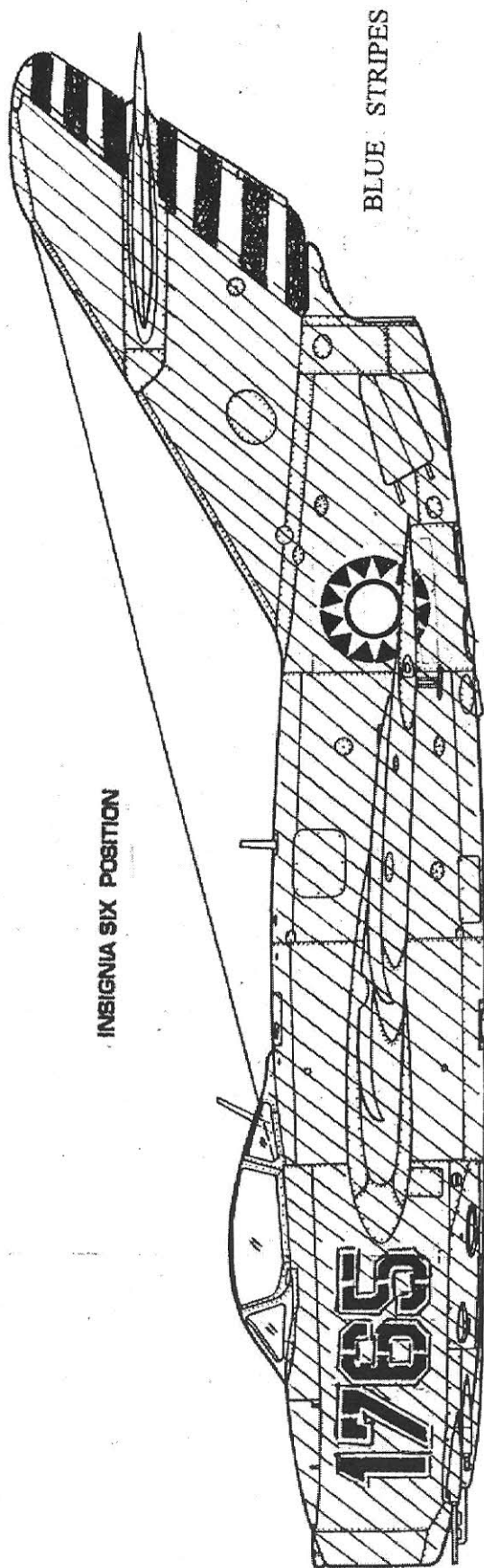
### Captions for the photos on pages 110 and 143-144

1. Cameri airport, July 1937. The first SM.79B with Iraqi markings and code number 100. More glazed nose panels were added on the further examples purchased by the RIAF.
2. Engine run-up for SM.79B no. 100. This aircraft suffered heavy damage in Baghdad and was returned to the manufacturer for extensive repairs.
3. Malpensa, Summer 1938. Iraqi pilots getting ready for a familiarization flight on a SM.79B.
4. October 1938, Nice in-flight shot of SM.79B no. 104 flying over Iraqi territory en route to Baghdad.
5. Lt. Carlo Bertotto, charged with the training of Iraqi pilots, poses in tropical attire by the undercarriage of a SM.79B.
6. Lt. Bertotto in company with some Iraqi officers. The Italian officer had a difficult task because the RIAF pilots didn't have the necessary qualifications for handling advanced multi-engine aircraft.
7. The new bombers are shown to the King of Iraq Ghazi I. The Savoias represented a great leap forward compared to the Audax-Nisr biplane bombers in use with the RIAF.
8. The SM.79Bs being prepared for the day's activities. The poor technical background of the Iraqi airmen slowed down the regular progress of the training syllabus.
9. The whole batch of Iraqi Bredas showing their elegant lines at Bresso airport. The two-seat examples (106 and 107) are without the L-type turret.
10. Breda 65 no. 118 (c/n 640797) was slightly damaged in a wheels up landing at Bresso, but was soon returned to flying condition.
11. The Italian instructors Carlo Bertotto (SM.79B) and Rudolfo Guza (Breda 65) in front of Breda 65 no. 109.
12. Breda 65 no. 109.

# NATIONALIST CHINA AIR FORCE

## MIG-15

WHITE STRIPES



BLUE STRIPES

BARE METAL

CAP JORGE DELGADO P.  
(SAFCH #862)

RED NUMBERS YELLOW BORDERS

After the Chinese Civil War of 1949, the remnants of Chiang Kai-shek's nationalist forces moved to the island of Formosa. The airplanes of his air force continued to wear the national marking of China prior 1949. On March 3, 1962, a MiG-15bis defected to Taiwan. The pilot was Liu Chen-se who had taken off from Zhejiang's Lu-Qiao on mainland Communist China. This was a good opportunity for the Nationalist Air Force intelligence department to test fly the Mig-15 against their best fighters. Liu Chen-se was rewarded by the government of Taiwan with 50 kg of gold! and the job of Director of the Chinese Air Force Radio. He retired years later with the grade of colonel. Others pilots defected to Formosa, but Liu's "Mig" was the first communist fighter to get to Taiwan in one piece. Today the aircraft is at the Taiwan Air Force Museum where it bears its original markings.



# The North American T-6 in Congolese Service (Part 1)

Leif Hellström

The Congo holds the distinction of having had two opposing air forces simultaneously using the North American T-6 as its main combat aircraft. Both used former Belgian aircraft crewed by mercenary pilots. In the end, the two forces never met in battle, however. One of the air forces was that of the break-away Katanga republic, whose use of the T-6 and Harvard has been chronicled in SAFO No.122 (October 2007). Here follows the story of the T-6 and Harvard in service with the central Congolese government.

Before independence, the Belgian Air Force had operated numerous aircraft in the Congo, as trainers and as light attack aircraft. The survivors of the latter were all evacuated to Ruanda-Urundi after independence. The trainers included some 20 aircraft, mainly Harvard Mk.4s, temporarily stored at the former Belgian flying school at Kamina. The UN had originally intended continuing to run Kamina, and opening it up for Congolese students, but these plans were soon abandoned for economic reasons. The stored Harvards were eventually hacked up and destroyed by United Nations forces on 14 March 1961. No flyable T-6s remained in the country at the time.

As mentioned in previous articles, the Force Aérienne Congolaise (FAC) was formed out of the remains of the colonial air unit known as Aviation Militaire, most of which ended up in Katangan hands. On 11 March 1961, UN and Congolese officials met to discuss future FAC aviation training. The Congolese stated that they had made tentative arrangements to purchase six Tiger Moths and nine Harvards. No source was stated at this time. It is interesting to note that the meeting took place three days before the Harvards at Kamina were destroyed, but no doubt their imminent destruction, or even existence, were unknown to the participants of the meeting.

In April 1961, the sole Congolese pilot, Major Paul Pierrot – who was de facto commander of the as yet unformed FAC – submitted to the UN a paper on a proposed FAC organization. It proposed using Auster D-5/160s as primary trainers (which was done in due course) and T-6s as advanced trainers, fighter conversion trainers and tactical aircraft. The proposal was to obtain ten T-6s: three as trainers, three as operational aircraft and four in reserve. As a more advanced tactical aircraft, the Spitfire was suggested!

The purchase price of the Harvards was estimated at 600,000 Belgian Franc (12,000 US Dollars) each.

It was logical for the Congo to turn to Belgium as a source and in late March 1961 already a UN report mentioned that the Congolese had contracted with the COGEA Nouvelle company in Belgium to supply "aircraft, parachutes, helmets, maintenance and instructors." This included unspecified numbers of Austers and Harvards, and 8 million Franc (160,000 US Dollars) had already been transferred in part payment. The involvement of COGEA explains the Congolese interest in the Spitfire, since COGEA was virtually the only source of flyable Spitfires at this time, having some in use as target tugs.

The UN force commander suggested giving the FAC full assistance in their efforts to set up a training unit but nothing much actually happened in this regard, neither then nor later.

In early October 1961, the Congolese defence forces wrote to the UN in the Congo, requesting their help in securing the delivery of aircraft purchased in Belgium. In addition to five Tiger Moths, four T-6s were ready for delivery, but Belgian customs wanted UN approval before allowing export, since there was an arms embargo in force on the Congo. Presumably the UN did provide approval since the first two T-6s were released soon afterwards.

In addition to Major Pierrot, a Belgian pilot named Idesbald "Peter" De Groeve had been hired by the FAC as advisor. His WWII rank was Flight Sergeant but in the Congo he assumed the title Wing Commander. De Groeve and Pierrot did conversion training on the T-6 with COGEA at Ostende in Belgium and then set off towards the Congo in T-6s OO-GEM and OO-GEP. The dates and other details of the flight are not known, since it strangely enough seems to have gone unnoticed in the press at the time. There are some reports that one of the T-6s had mechanical problems en route, causing a delay, but again the details are vague.

The first firm mention of the T-6s having arrived in the Congo is provided by a UN report dated 27 January 1962, stating that two Harvards were in military service at N'Dolo airport in the capital Leopoldville. (The two aircraft can be considered either T-6Cs or Harvard IIAs; I have chosen to normally use the collective designation T-6 in this article, except when talking about Canadian

built aircraft.) The T-6s likely arrived during January, or possibly in December 1961 already. None of the few Congolese student pilots were anywhere ready for conversion onto the T-6 so it is likely the aircraft saw little use at this time.

The two T-6s were given serials in the then-current FAC serial system, which consisted of two letters and two digits. One of them became WE-21 while the serial of the other one remains unknown; probably WE-22 or WE-20.

The T-6s were completely devoid of any armament. Even so, on 28 February the Congolese Army in Albertville in eastern Congo requested that the two T-6s and a Do 27 be sent to provide "air support" against an expected attack by Katangese troops. Neither T-6 could be sent straight away but one was expected to be made serviceable by about 3 March, while the other was "grounded indefinitely", a testament to the usual low technical capability and poor spare parts availability in the FAC. Nevertheless, in due course, Major Pierrot managed to get going eastward in a T-6 but only made it as far as Luluabourg (about halfway across the country) before being grounded with undercarriage hydraulic problems. And there the aircraft stayed, for some considerable time.

For some reason no attempt seems to have been made to deliver to the Congo the other two T-6s purchased in Belgium during this period. Possibly they had not been fully paid for yet. A purchasing mission sent to Europe and the USA in March 1962 was reported to be looking for two more T-6s, among other things, but there are no indications that any serious attempts were ever made to actually do so.

Pierrot's less than glorious outing marked the effective end of the first FAC attempt to operate the T-6. As noted earlier, Pierrot and De Groeve were the only pilots capable of flying the T-6 and both were discharged in late March 1962, in connection with an embezzlement scandal. This left the FAC with no operational pilots, and no operational T-6s. Apart from some flying training on light aircraft, the FAC had no activity. A US advisory team visiting the Congo in July 1962 reported that, "Congolese Air Force effectiveness, at present, is nil".

After the independence of the Congo, Belgium continued to operate a number of armed T-6s in the neighbouring Ruanda-Urundi. However, this territory was also scheduled for independence, as the two new countries Rwanda and Burundi. In 1962 the Belgians therefore began disposing of their military equipment there and three each T-6Cs and T-6Ds (the last Texans/Harvards in Belgian service) were put up for

sale. Katanga showed an interest in purchasing the T-6s, and it was possibly to forestall such a sale that the Congolese government sent a delegation to Usumbura in Burundi in late July 1962 to negotiate a purchase. The price was 899,000 Franc (17,980 US Dollar) per aircraft. The machine gun pods mounted in Belgian service were removed before hand-over and the aircraft were thus delivered unarmed. Due to the lack of Congolese pilots, the UN sent six Swedish ferry pilots to pick up the aircraft at Usumura and fly them to Leopoldville, via Kamina. There was a shortage of parachutes and crash helmets so each pilot got to choose either one or the other! The T-6s carried their former Belgian serials (but no roundels) during the delivery flight and retained these in FAC service as well.

The six T-6s arrived at N'Dolo airport in Leopoldville on 20 August 1962. Bands were playing, flags were flying and military dignitaries made speeches. But at the end of the day there were still no pilots to fly the planes. The German instructors at the military flying school were hoping for the UN to check them out in the T-6 so they could be used for training but there is no indication that this was ever done. As always, there were private individuals and companies offering their services and the US ambassador expressed concerns that the Congolese might be tempted to hire "no good roustabouts" to fly the aircraft. Nothing happened immediately, however. For once, the FAC had bought a fair amount of spare parts – for engines and pneumatics as well as fuselage, wing and tail components – and the UN lent a technician to get the parts and technical paperwork sorted out.

During the autumn of 1962 there was increasing pressure on the Congolese government from the political opposition to end the Katanga secession once and for all. The situation became even more critical once the Katangese started using their newly delivered T-6s against the Congolese Army. The Congolese Prime Minister Adoula was begging the US embassy on an almost daily basis to provide him with some air support, at least one aircraft. Since the USA did not want to be directly involved in the Congo, it was eventually decided to recruit some Cuban exile pilots, formerly of the Bay of Pigs, to fly the T-6s. The first five Cuban pilots and one mechanic arrived in mid November 1962, with fake IDs showing them to be from the Dominican Republic, Guatemala, and so on.

The Cubans immediately started flying the T-6s; they had already completed a short T-6 refresher course in Florida before going to Africa. The six new T-6s bought in Burundi were all serviceable – a US



report claimed they were "in excellent condition" – while the two original aircraft remained grounded. The new aircraft were initially unarmed but a shipment of US rockets arrived in mid December, together with a couple of US technicians who helped mount rocket launchers for 2.75" Folding Fin Aerial Rockets (FFAR) on the aircraft. The launchers were little more than pipes. There were three pairs under each wing, although only the outer pipe of each pair was apparently used, for six rockets in all.

The US ambassador urged combat training to start immediately: "Crunch in Congo could occur in months' time. We will want [FAC] light attack plane capability under disciplined control." The Cubans went to Matadi near the Atlantic coast for rocket training, firing off 160 rockets over the next few weeks. Their training was aimed at preparing them for an airfield strike, the target of which would no doubt have been the main Katangese airfield at Kolwezi, the home of a number of Katangese T-6s.

As it happened, while the Cubans were still training, the SAAB J 29s of the UN forces attacked Kolwezi and other fields in the last days of December 1962, destroying many Katangese aircraft while others escaped to Angola. A couple of weeks into 1963, Katanga surrendered. The planned FAC T-6 strike was therefore never carried out. By February 1963 the Cubans were said to be "capable of mission performance" but the "grossly inadequate" logistics support made the likelihood of any extended field operations "questionable", according to the DIA.

The two other aircraft purchased from COGEA had obviously arrived at last, since they were reported as being assembled in January 1963. One of them was a T-6C while the other was a Canadian-built Harvard IIB: the only such aircraft to see FAC service. It took several months before the assembly was completed, however. A DIA report from late February 1963 actually claimed that there were eleven T-6s in the inventory. This would have to include the grounded and half-assembled aircraft, as well as the single ex Katangese T-6 surviving in the Congo which remained in UN hands until a year later, when it was handed over to the FAC on paper, but never flown by them.

On 3 April 1963 (some sources say 3 March), the FAC lost T-6Ds numbers H23 and H34 in a collision during dogfight training. "Reason for accident: two aircraft occupied the same airspace at the same time"; this was the less-than-useful explanation in the official accident report. The aircraft were flown by Eduardo Herrera and Mario Ginebra and the collision was

witnessed at close quarters by Cuban pilot Rafael García:

I flew right through the debris of Herrera's airplane. I looked to see what was happening to the people; I saw one who was able to bail out. When I looked to the other side, Ginebra's T-6 had lost a wing and he was spinning down. I didn't see what happened to the airplane but he was able to bail out and both got out alive.

On the whole, 1963 was otherwise rather uneventful. The Cubans stayed on to fly the T-6s, mainly to "show the flag" for the Congolese government. Much of the flying was in formation, to impress the local population. They only made flights in the Leopoldville area and never further afield. "Because we were scared," one of the pilots admits. "If we had to make a forced landing, we were going to be eaten!" Therefore they always tried to fly together and they were carrying guns in the cockpit. Every six months, most of the pilots were replaced by a new group. They performed some training of Congolese pilots, but this was done haphazardly and very sporadically. No Congolese soloed on the T-6 in this period.

The T-6 unit did not have any official designation and was in fact not even an official unit: there was no unit commander and the chain of command was rather hazy. The pilots sometimes jokingly referred to themselves as the "Kamikaze Squadron" and their CIA handler called them the "Mamafufu Squadron", after a Chinese word meaning haphazard or of little use.

In mid 1963 the whole FAC fleet went through a renumbering in the 9T-Pxx series. The four survivors of the T-6s bought from Burundi were gradually reserialled as was at least one of the original two aircraft. The second original T-6 was likely also reserialled, if only on paper; it would appear that new serials were retroactively allocated to all FAC aircraft from the very start, including those that had crashed. The two T-6s assembled in 1963 were given serials in the new series from the beginning.

In the last days of 1963 a rebellion against the central government broke out in the Kwilu province, some 400 km east of Leopoldville. The rebellion was led by Pierre Mulele, a former government minister who had since been receiving training in China and elsewhere. His followers, called Mulelists, adopted an ideology which was a strange mix of Maoism and traditional African beliefs. They attacked a number of towns and outposts and were soon involved in fighting with the Congolese army, the ANC.

The FAC still had no other combat aircraft than the T-6s and there were soon calls to send these to Kwilu to assist the army. The Congolese had to rely on the Cuban pilots, plus two American pilots also employed by the CIA. Since the USA was committed to assisting the Congolese government, it was agreed that the Cubans could be used on combat operations. One or two of the Cubans were not very keen on the idea, since the new groups had not signed on for combat duty. Also, at this point the T-6s lacked radios and the navigation equipment only worked in half the aircraft. Even so, most of the Cubans agreed to take part.

By late January a detachment of three or so T-6s was stationed in the Kwilu, using the town of Kikwit as their main base. There were few amenities and the crews lived in the small airport terminal or in tents. The airfield was also used by a UN air detachment flying Sikorsky S-55s and DHC Otters, and mainly engaged in evacuating missionaries and nuns from remote stations. An understanding was reached whereby the T-6s would fly close air support to the UN helicopters when on rescue missions, and in return the UN would provide air rescue for any downed T-6 pilots.

While in Kikwit, the Cubans used to fly every day. They always flew in pairs: one aircraft with functioning navigation equipment and one without. They sometimes flew in direct support of the ANC and sometimes on armed patrols. One of the pilots, Tony Soto, recalls this period:

We were four or five guys, in the middle of nowhere. So we used to take two 'planes at six o'clock in the morning and go around our base, to protect our asses. Then at eight o'clock, somebody would call and say, "You've got to go to Idiofa, someone is moving people." So two more planes go out. We go, we check, we go back, we land and that's it. Then in the afternoon we send two planes again. The war wasn't that furious. Out of ten days, we would actually shoot maybe one day.

The way it goes in Africa, when you see a village razed to the ground you look ahead. Then you see another village smoking. So you keep going and when you see another one burning, then you know the army is here. Our army. (...)

One day I was flying and saw people coming to Idiofa from some other place. Then I saw the army, on the side: they were bringing like 300 or 400 people. And then, behind them, in the ditches, I saw people with loin clothes and

arrows, following the army on foot. They got balls, I can tell you.

Well, you come right down, brrrr-bam, and you go away. Maybe you didn't kill nobody. I was flying low. I saw a guy coming out of the bush and throwing a spear at me! They must be nuts.

Pairs of T-6s participated in several joint missions with the UN, usually circling around while the helicopters landed to pick up the refugees, and sometimes attacking Mulelists approaching the landing zone.

At the start of the Kwilu operations, the T-6s still only carried rocket armament. But in March or April 1964, machine gun pods were installed under the wings of at least three of the aircraft, by mechanics of the Belgian Air Force sent to the Congo especially to do this job. The pods were of the same type as those used on T-6s in Belgian service and one source claims they had in fact been received with the aircraft and kept in storage in Leopoldville since 1962. They were of the French SAMM 410 type, originally developed for use on T-6Gs and other types in Algeria. Each was armed with two French 7.5 mm MAC AA-52 machine guns. When the gun pods were mounted all but the center pair of rocket tubes were apparently removed under each wing, although both of these would now sometimes be used instead of only the outer one in the pair, allowing four rockets to be carried. There was talk about starting to use bombs but this was not progressed with, probably for political reasons. Radios were also installed around this time, but could not be used to communicate with the ground troops.

One T-6C, 9T-P36 flown by Tony Soto, was lost in a landing accident at Idiofa in February 1964. After touching down he veered off the runway to give room for a following T-6 to land. Unfortunately the tall grass on the verge hid a large roller which hit the centre section flaps and caused the aircraft to turn over. The T-6 was dismantled (with the help of labour from the local prison) and apparently airlifted to Leopoldville for repairs but it seems likely that these were never carried out.

In early April 1964 the USA was considering sending six or so T-6s to the Congo, to reinforce the FAC, but it was soon decided to provide T-28s instead.

The Kwilu air operations continued until May 1964, by which time the Mulelists had been largely contained in the bush. They were not finally defeated until three years later but for the time being there was

no further requirement for air support. In the meantime a new rebellion had started in eastern Congo and the FAC was about to receive newer, or at least better aircraft from the USA to cope with that threat.

In the late spring of 1964 the remaining six operational FAC T-6s were all gathered at N'Dolo airport in Leopoldville and were for all practical purposes withdrawn from use. It was time for a new group of Cuban pilots to take over and they immediately transitioned onto the new T-28s which began arriving in June 1964, leaving nobody to fly the T-6s. For a couple of months the T-6 would now be out of service with the FAC, but would soon make a come-back with new personnel and largely new aircraft as well.

The first two T-6s were apparently sprayed silver overall, with a black anti-glare panel and wide, yellow bands on the fuselage and wing tips. National insignia (a yellow star on a blue disc) were carried on top of the right wing and under the left wing (opposite to US practice, please note!), with the then-current Congolese flag on the fin. The serial, e.g. WE-21, was painted in black on both sides of the fuselage; note that the spacing was different left and right! The spinner was white and red, at least on WE-21. A surviving aircraft was in 1964 re-serialised 9T-P31 and given markings very similar to the below group.

The six T-6s from Burundi were natural metal with black anti-glare panels, black stripes around the rear fuselage and wing tips, and a large black rectangle behind the exhaust. The wing tips and main wheels were red. National insignia were applied on the wings as before, but also on the fuselage sides, where they were always slanted. The aircraft retained their Belgian serials, e.g. H22, on the fuselage and fin, in black. For some reason, aircraft H220 was given black and yellow stripes on the cowling, rudder and elevators. The survivors were re-serialised in the 9T-Pxx range in mid/late 1963 and soon afterwards red and yellow bars were added to the national insignia. It appears at least one or two of the aircraft were also sprayed overall silver at a late stage.

Of the two aircraft assembled in 1963, it seems 9T-P46 was sprayed silver while 9T-P47 was natural metal. Both had black anti-glare panels and red wing tips. The national insignia were similar to those of the previous group, but those on the fuselage were aligned to the line of flight rather than to the ground. Red and yellow bars were added to the insignia in late 1963 or early 1964 but there were no flags on the rudder at this time. 9T-P47 had a dark green fin tip, and for some time most likely a dark green spinner, and initially also continued to carry its Belgian civil registration (OO-GDK) on the fin. 9T-P47 also carried nose art in the shape of a brown and tan

lion's head on the right-hand side of the nose, with the text "SIMBA" and (rather grandly) "CHASSEUR AIR FORCE CONGOLOISE". The latter text was later partly obscured by a black square painted behind the exhaust.

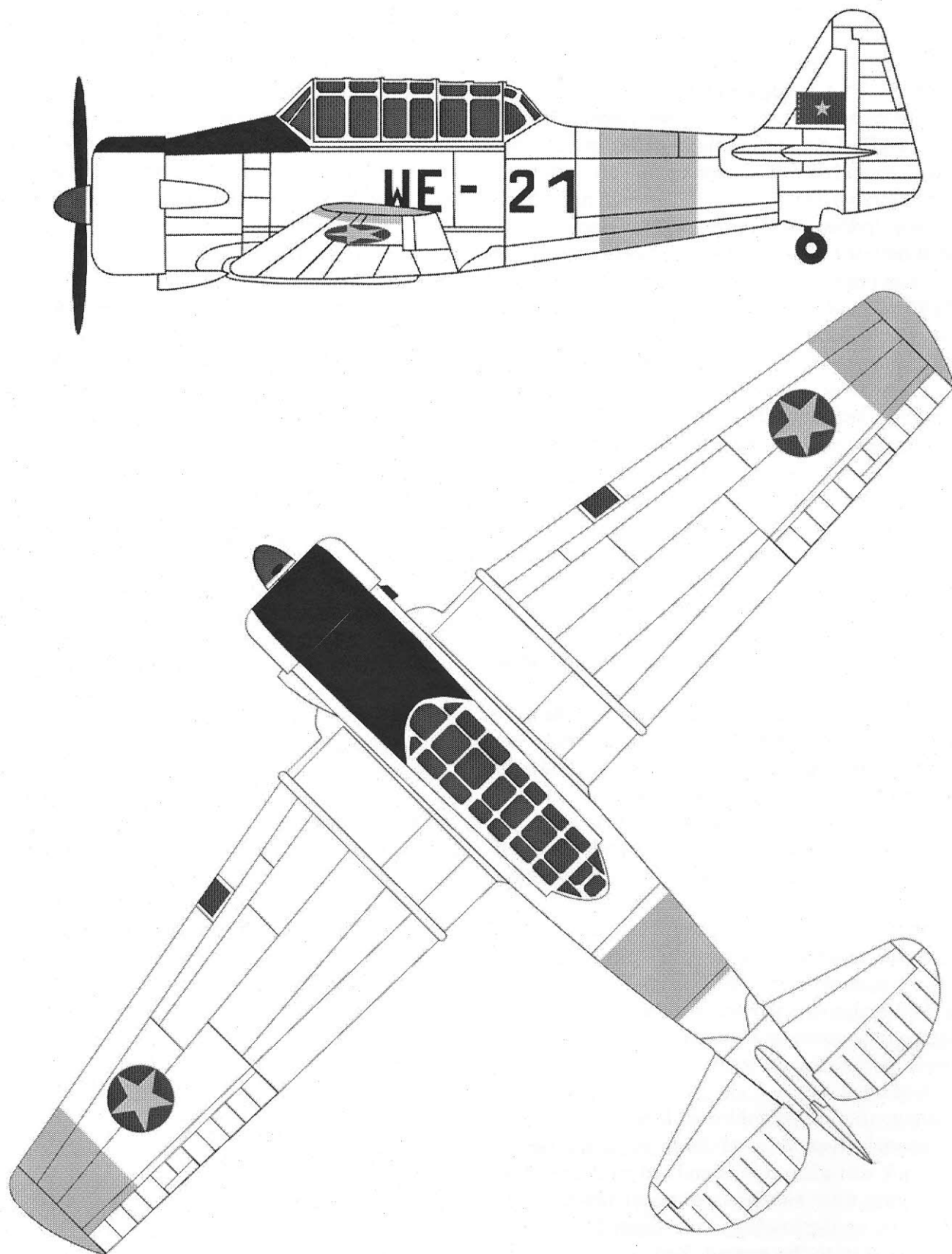
The rest of the story will be covered in part 2 of this article, in a future issue of SAFO. A full list of the aircraft will also be provided at that time. □

Leif Hellstrom (SAFCH #786) Sweden.

### Captions for photos on pages 125-126

1. One of the first two T-6s of the Congolese Air Force, seen at Luluabourg after it was abandoned there with undercarriage problems in 1962. It carries the early style of national insignia, used in 1960-1962. (Bengt Fredholm)
2. The same aircraft seen from the other side, also at Luluabourg. The tip of the red and white spinner is just visible. Note that the spacing of the serial "WE-21" is quite different on the two sides! (Gilbert Casselsjö)
3. In 1962, Congo purchased six T-6s from the Belgian Air Force in Urundi. Photographed at Kamina air base during the delivery ferry flight in August 1962, H220 carries the Belgian serials while the Belgian national insignia have been removed. (Marc Dahlhjelm)
4. Aircraft H220 in Congolese service in 1963. The old Belgian serials are still used, with (lopsided) Congolese insignia added. H220 was the only Congolese T-6 to have its cowling, rudder and elevators decorated, with black and yellow stripes. (Leonardo Seda)
5. Another of the six T-6s from Urundi was H221, here seen in markings representative of this batch of aircraft. All six had red wheel discs and wingtips. Note the size of the star on the underwing roundel; the Congolese national insignia were not very well standardized at the time. The details of the rocket tubes are also clearly visible. (Leonardo Seda)
6. Two additional T-6s were added in 1963, at the same time as a new style of aircraft registrations was introduced. 9T-P47 for some reason continued to carry its former Belgian civil registration OO-GDK for some months. The lion's head insignia on the nose is clearly visible. (Leonardo Seda)
7. A close-up of the insignia on 9T-P47, the only Congolese T-6 to carry any kind of "nose art". The head, and apparently also the text, was painted in various shades of brown. (Leonardo Seda)
8. A very shiny 9T-P35 photographed over the Kwilu province in the spring of 1964. Note that it carries the style of national insignia introduced in 1964, usually by simply adding red and yellow bars of varying sizes to the existing insignia. (Lennart Edvinsson)





**WE-21 was one of the very first T-6s of the Congolese Air Force, used only for a brief period in 1962. The aircraft was sprayed overall silver, with wingtips and fuselage band in lemon yellow. The anti-glare panel was black and the spinner red and white.**

**(Drawing by Roger Evans, Whirlybird Decals)**



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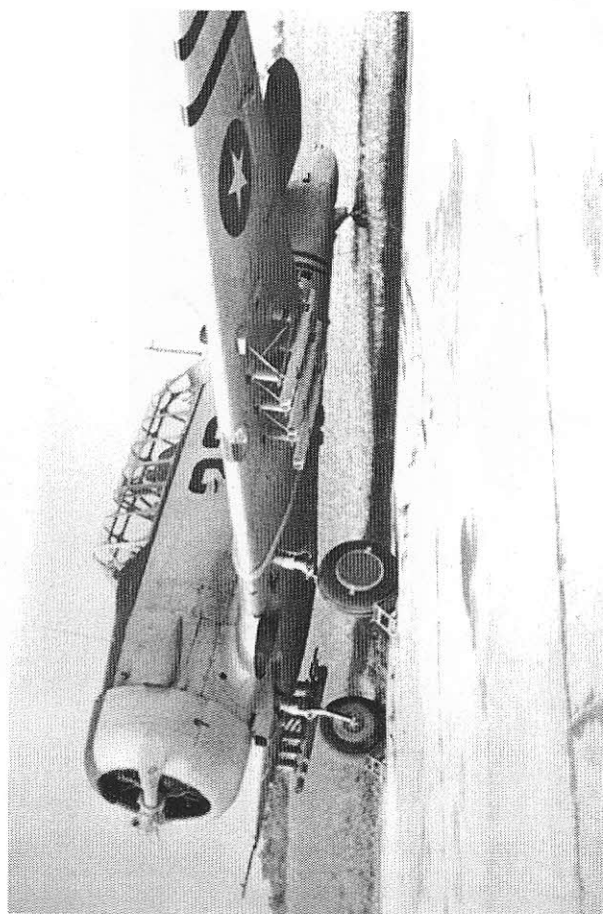


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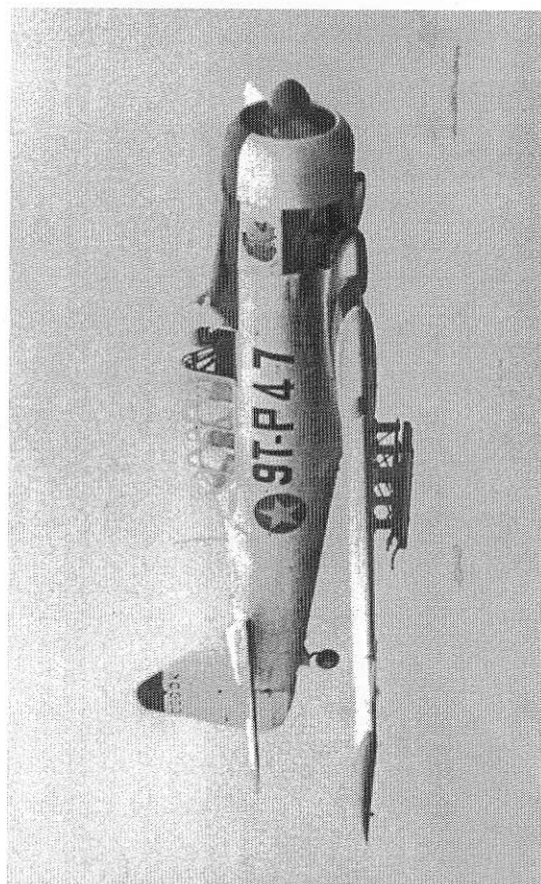


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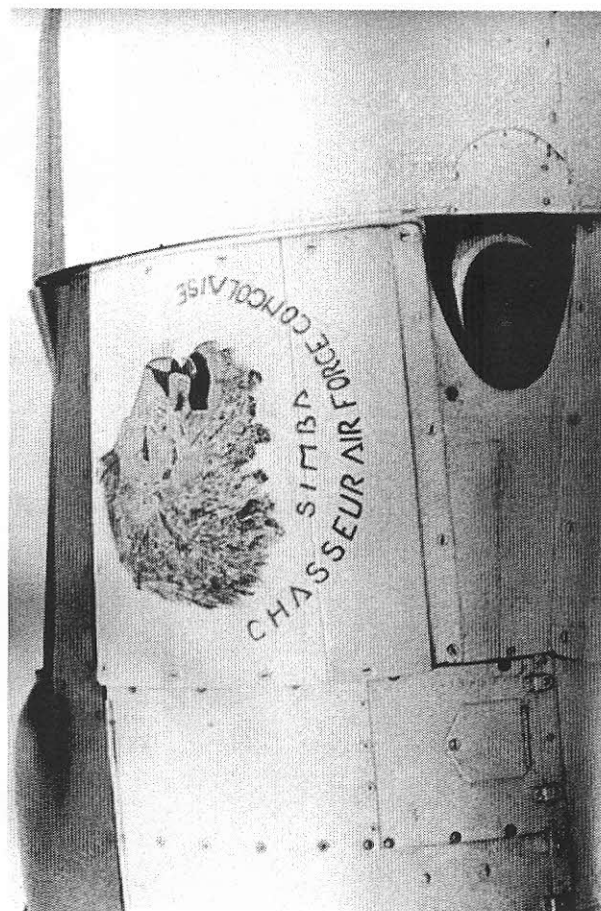




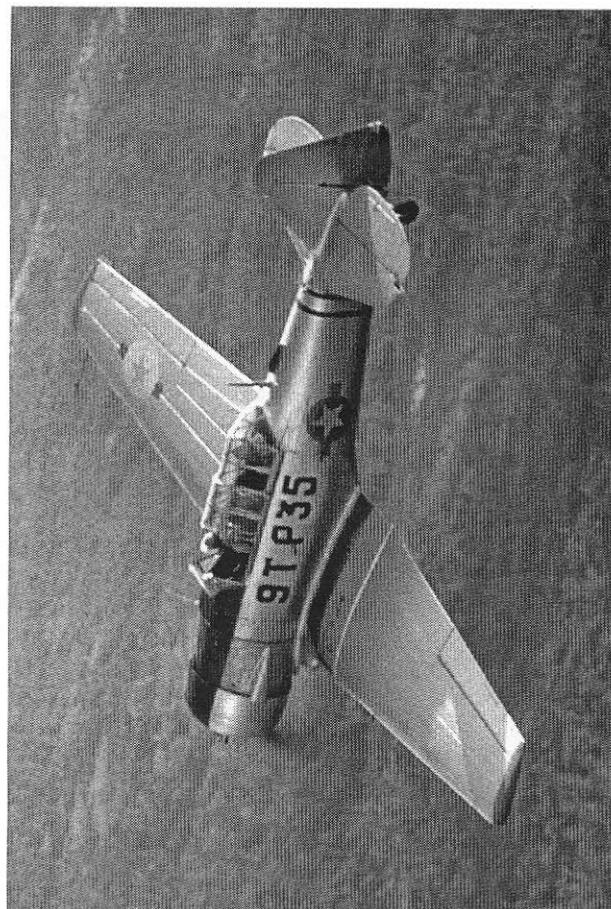
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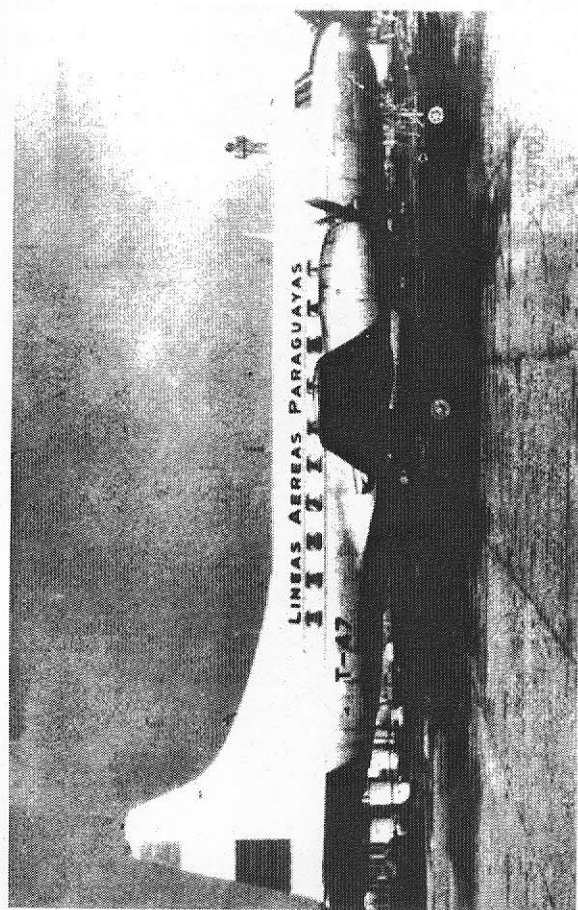


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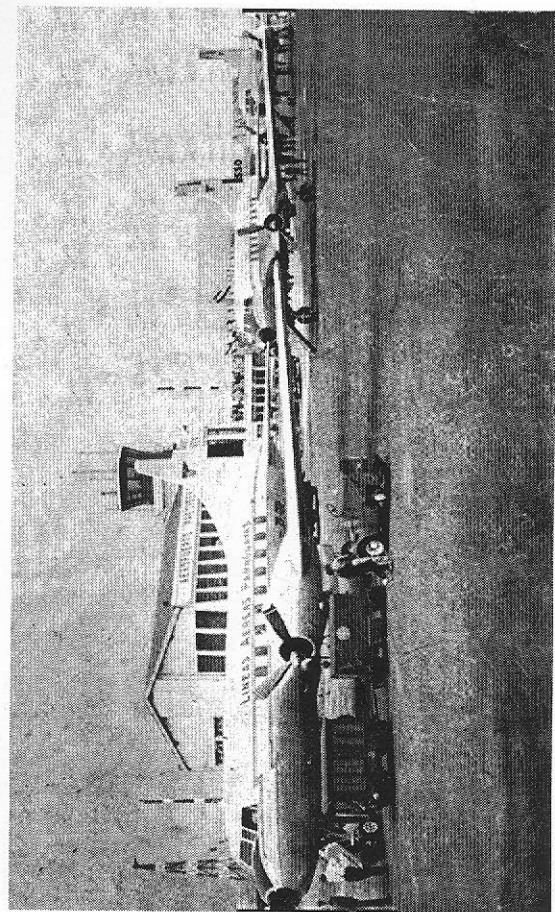


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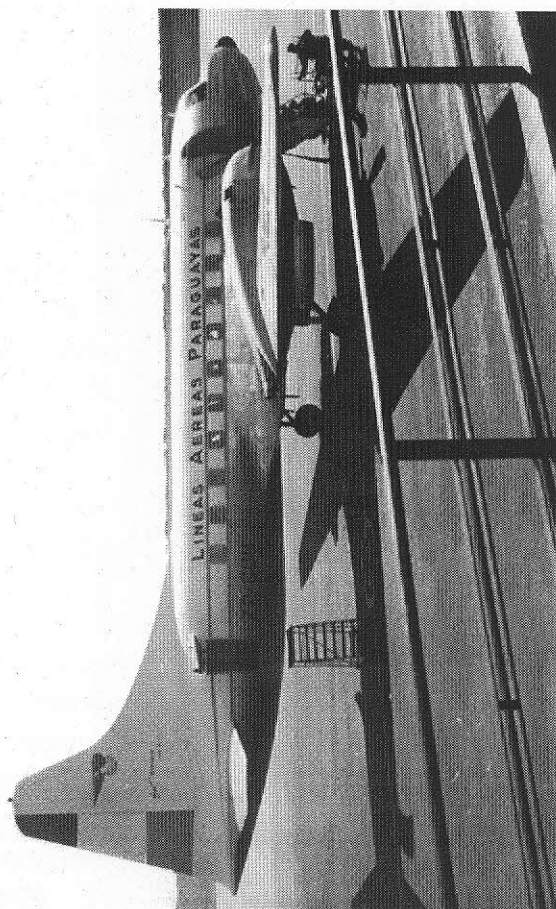




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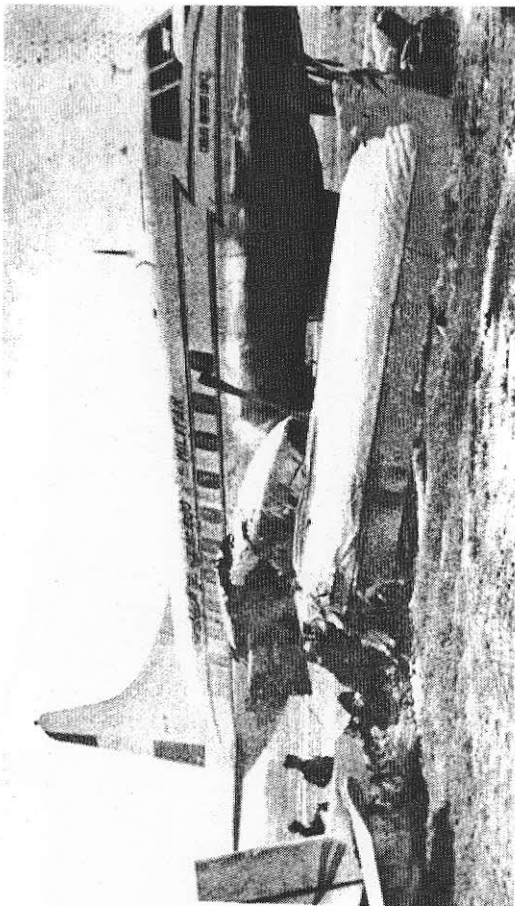
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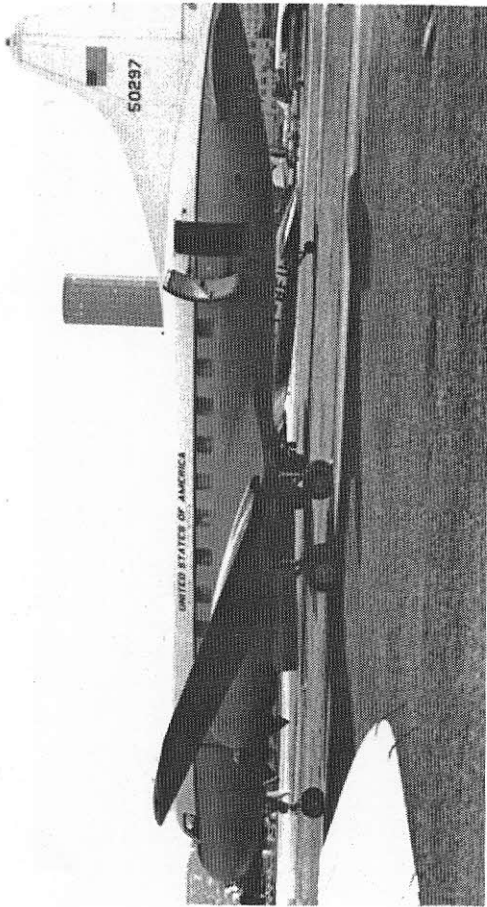
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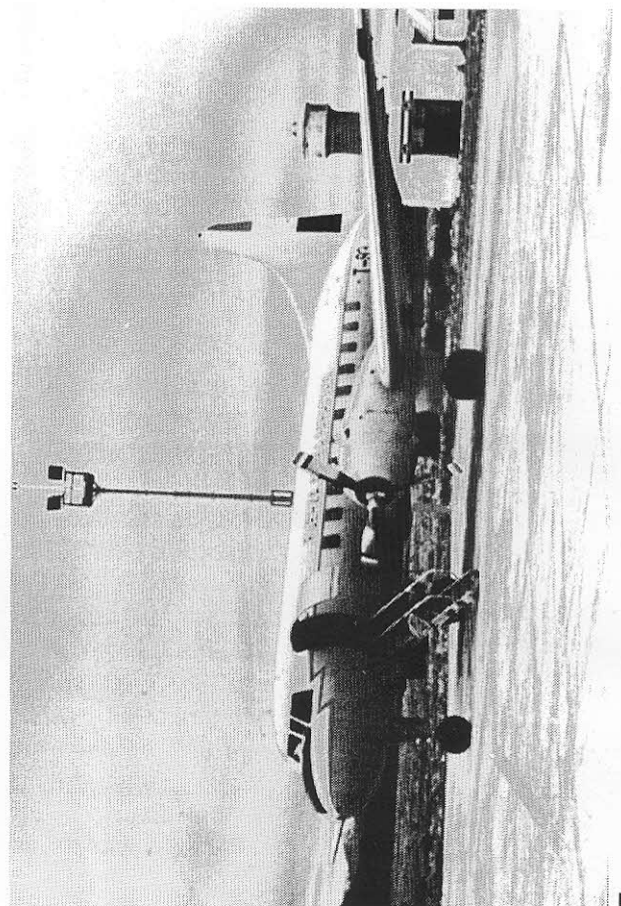
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# Paraguayan Air Force Convairliners

Antonio Luis Sapienza Fracchia

## Convair CV-240

On July 26th, 1962, Lt.Col. Adrián Jara was appointed as the Paraguayan Military Aviation Commander. One of his plans was the reorganization of the entire force including the foundation of an international airline managed by the military. It's worth remembering that Paraguayan Military Aviation already had an airline, the *Transporte Aéreo Militar* (TAM, Military Air Transport) that covered almost all the internal routes in Paraguay. It was founded in 1954 and in 1962 its fleet was composed of seven Douglas DC-3/C-47s.

Lt.Col. Jara and his top rank officers prepared the project and introduced it to the President of Paraguay who gave his OK. Several options were considered to equip the airline, but the most economical and suitable was the acquisition of three second hand Convair CV-240-6 from *Aerolíneas Argentinas*. On August 20, 1962, Lt.Col. Jara and Dr. Oscar Stark Rivarola, President of the Paraguayan Central Bank, traveled to Argentina in order to negotiate the purchase of three Convair CV-240-6 from *Aerolíneas Argentinas*.

The chosen Convairs were the following ones:

- LV-ADN (c/n 50) named "*Uspallata*" in *Aerolíneas Argentinas*, which originally received the FAP serial T-43. It was later registered as ZP-CDN and baptized "*Carlos Antonio López*" (First Constitutional President of Paraguay).
- LV-ADO (c/n 62) named "*San Lorenzo*" in *Aerolíneas Argentinas*, which originally received the FAP serial T-45. It was later registered as ZP-CDO and baptized "*General Bernardino Caballero*" (Hero of the Triple Alliance War, later President of Paraguay and one of the founders of the Colorado Party).
- LV-ADP (c/n 72) named "*Chacabuco*" in *Aerolíneas Argentinas*, which originally

received the FAP serial T-47. It was later registered as ZP-CDP and baptized "*José Gaspar Rodríguez de Francia*" (One of the Paraguayan Independence Patriots).

The Convairs received military serials because the airline was not formed legally at the time of the purchase, so the official buyer of the planes was the Paraguayan Military Aviation. The final price for each Convair CV-240-6 was 156,966 U.S. Dollars plus 90,000 Dollars for spare parts and the training course for four crews. The total price paid was 560,898 U.S. Dollars.

The official name of the new airline was decided right after the purchase of the aircraft. The chosen name was *LINEAS AEREAS PARAGUAYAS* (LAP, Paraguayan Air Lines) This title was painted on the three planes before delivery.

The training course for the crews took place in Buenos Aires between November 18 and December 14, 1962. The Paraguayan Military Aviation officers who participated in the training course were Lt.Col. Adrián Jara, Lt.Col. José María Argaña, Lt.Col. Epifanio Cardozo, Capt. Manuel Insaurralde, Capt. Ángel Souto, and Capt. Raúl Calvet, all C-47 pilots. Ten mechanics also participated in the course.

On December 15, 1962, Convair CV-240-6 T-43 already painted in LAP colors landed at Asunción International Airport. Lt.Col. Jara informed the Press that all three Convairs were going to be inspected in the United States before LAP started commercial operations in August 1963. The other two Convairs arrived in Paraguay days later.

On January 12, 1963, Convair CV-240 T-43 was flown to the U.S. by Capt. Souto and Capt. Insaurralde for a general inspection that included structure, engines, a change in the landing gear to increase the cargo capacity to 15,674 kilos, the upgrading of the radio and communication equipment, and the installation of Bendix RDR-10 radar. The passenger cabin was refurbished and music equipment fitted for the passengers by



*American Airmotive Inc.* Each aircraft stayed in the U.S. for 45 days. The next plane to travel to the U.S. was Convair CV-240 T-45 in March, 1963, crewed by Capt. Insaurralde and Capt. Calvet.

On March 18, 1963, the Paraguayan Government officially founded *LINEAS AEREAS PARAGUAYAS (LAP)* through the Law Nr. 337, and days later the three aircraft were assigned the civil registrations mentioned before. These registrations were immediately painted on the aircraft, substituting for the military serials. Lt.Col. Adrián Jara was appointed as the President of the airline.

On June 18, 1963, the third Convair 240, ZP-CDP (ex T-47) was taken to the U.S. by Capt. Insaurralde and Calvet. Meanwhile, the other two Convairs performed a series of exploration flights to Sao Paulo, Rio, Montevideo and Buenos Aires to train the crews, specially the flight attendants who received training in the *Transporte Aéreo Militar (TAM)* facilities in Asunción. ZP-CDP returned to Paraguay on August 12, 1963.

Everything was set up for the official inauguration ceremony of the new airline, which took place on August 20, 1963 at Asunción International Airport. Flights started on that date to Curitiba, Sao Paulo and Río, and later to Buenos Aires and Montevideo.

The airline was organized in a military way and the main personnel were military: pilots, copilots, flight engineers, radio operators, mechanics, managers and top rank personnel. Only the flight attendants were civilian, but trained by the military.

The Convairs CV-240 covered all the LAP routes during the 1960s. On Friday May 26, 1967, Convair CV-240 ZP-CDP crashed while landing at Ezeiza International Airport in Buenos Aires. Flight PZ202 was crewed by Capt. René Ferreira as pilot, with 1st Lt. Pablo Romero as copilot, Sgt. Zacarías Soto as flight engineer, Sgt. Marcial Quiñonez as radio operator, and flight attendants Néstor Arrúa and Elodia González. There were 19 passengers. Fortunately, there was no loss of lives, but the plane was completely destroyed. The accident was caused by an electrical failure of the reversal of the engines. It was activated seconds before the touchdown on the final approach; Capt. Ferreira tried to inactivate it but one of the engines did not

respond. The resulting asymmetry turned the plane upside down and it crashed.

After the accident, LAP continued to operate the remaining two Convairs. There were plans to purchase another Convair in the U.S. but it was not successful. LAP also considered buying Fairchild Hiller FH-227 to replace the Convairs in 1968, and even a Sud-Aviation Caravelle from Aerolíneas Argentinas, but these operations were not successful either. LAP had to wait two more years to receive new aircraft: three ex-EASTERN Lockheed L-188 Electra C, arrived to Paraguay in February 1969.

One of the Convairs, ZP-CDO, continued operations in LAP until 1973 when it was officially withdrawn from service. The other surviving Convair, ZP-CDN, was transferred to the TRANSPORTE AEREO MILITAR (TAM) in March 1963, and it received serial T-63. During the months of March and April of that year, it performed a series of charter flights to Brazil and Argentina.

On May 8, 1969, T-63 was damaged in a tragic accident while parked in front of the Passenger Terminal at Asunción International Airport. The Convair was unoccupied. Parked nearby was a Fairchild-Hiller PC-6 Turbo Porter, American registration N356F, that was on a factory demonstration tour of South America. Before coming to Paraguay, it has visited Uruguay and was to have gone on the Chile. Many Paraguayan authorities, including the President, Gen. Alfredo Stroessner, were there to witness the demonstration. The Argentine pilot of the Turbo Porter, Ernesto Vignoni, invited the President along for the flight. Gen. Stroessner refused, but he ordered General Adrian Jara, the President of LAP and Commander of the FAP, to go instead.. A close friend of Stroessner, Dr. Luis Migone was persuaded to go along. General Andrés Rodríguez was the fourth passenger on the ill-fated Turbo Porter.

Wanting to demonstrate the short takeoff performance of the aircraft, the pilot attempted to takeoff using only the apron of the hanger. He didn't make it! The Turbo Porter crashed into the unoccupied Convair. The resulting fire completely destroyed PC-6. Two of the four people onboard

the Turbo Porter were killed instantly: the Argentine pilot, Vignoni, and Stroessner's friend, Dr. Migone. An FAP Sgt. managed to rescue General Jara, but the General died of his injuries the following day. The only survivor was General Rodriguez who got out of the plane seconds after the crash. (Twenty years later he became the President of Paraguay).

The right wing and engine of Convair T-63 were completely destroyed. LAP used the remainder of T-63 as a source of spare parts for ZP-CDO for a few years. T-63 was finally scrapped in the late 70s.

### **Convair C-131D**

On July, 1976, the U.S. government, through Military Aid Program (MAP) funding, donated a *Convair C-131D* Samaritan to the Paraguayan Air Force. This became the last delivery of military aid to Paraguay, since the government of President Jimmy Carter cut all military aid to Paraguay, based on the human rights violations that happened under the government of dictator General Alfredo Stroessner.

This Convair was previously operated by the USAF and was on detachment in Rio de Janeiro, Brazil. It had the military serial 55-297 (c/n 322). On delivery to Paraguay, it was painted in standard *Transporte Aereo Militar (TAM)* colors and given the registration T-93. This Samaritan was originally configured as a VIP transport and was operated as such during its first year of service with the FAP. Later the interior was reconfigured for passenger transportation and it was assigned for operations with TAM. In service with TAM, it fulfilled regular flights to those cities in Paraguay that had paved-runway airports, supporting the operations of the large C-47 fleet being operated by the FAP at that time.

In 1980, T-93 was given a new registration as 2001 and continued being employed by TAM on regular flights, basically to Ciudad del Este, operating from the Itaipu airport. It was also employed on several international charter flights, transporting military sporting teams and cultural delegations to Uruguay, Argentina, Chile and Brazil.

During a routine inspection performed in 1989, it was discovered that both engines showed problems. Based on this information, the FAP decided to ground the airplane, while awaiting for the necessary funding for repairs, but this never happened. It was not until 1997 that FAP decided to put it up for sale. It was purchased by a Paraguayan entrepreneur, who has it stored at the Asuncion's International Airport, in the hopes of overhauling it in the near future. It was unfortunately scrapped in 2005. □

Antonio Luis Sapienza Fracchia (SAFCH 1154), Paraguay.

### **Captions for photos on pages 127-128**

1. Convair CV-240 T-47: An early picture of LAP's Convair CV-240 still with the military serial T-47 before receiving the registration ZP-CDP. Photo copyright: Revista Ñandé.
2. LAP inauguration ceremony: It took place on August 20, 1963, at Asunción International Airport. The three LAP Convairs CV-240 can be seen. Photo copyright: Revista Alas Paraguayas.
3. LAP's Convair 240 ZP-CDN: Photo taken at Carrasco International Airport in Montevideo, Uruguay in the mid-1960s. Photo copyright: Nery Mendiburu.
4. TAM's Convair 240 T-63: Picture taken at Ezeiza International Airport in Buenos Aires in March, 1969. Photo copyright: Alex Reinhard.
5. TAM's Convair 240 T-63 accident: Photo taken right after the accident on May 8<sup>th</sup>, 1969 at Asunción International Airport. Photo copyright: ABC Color newspaper.
6. USAF Convair C-131D 55-297: Picture taken in Rio de Janeiro in 1976. Photo copyright: Martín Bernsmüller.
7. Convair C-131D T-93: Picture taken in Rio de Janeiro shows this plane with the FAP titles and the serial T-93 right before delivery, in July, 1976. Photo copyright: FLAP International.
8. Convair C-131D FAP 2001: Picture taken at Aeroparque Jorge Newbery in Buenos Aires, Argentina in 1984 right after a charter flight from Asunción. Photo copyright: Horacio Gareiso.

# The Hellenic Bristol Fighters

Stamatis J Andreou

Spring 1925: 'Naftikí Aeroportía' (Naval Aviation) ordered 6 machines for the advanced training role; they were Bristol's Type 81A, a dual trainer version specially developed for Greece. 'Naftikí Aeroportía' also supplied the powerplant, the 230 hp Siddeley Pumas. They were reconditioned aircraft, serial numbered '6136' to '6161'. They were given the codes '131' to '136'.

The machines were unarmed and only able to carry a camera and had the following Mk IV features:

- they had an undercarriage with shock absorber
- they had Frise ailerons which extended one rib further inwards than those of the Mk I; there were double wing slots that extended to the full length of the ailerons – there were no slats
- the vertical tail was higher (the rudder also included the top of the fin)

1930: 'Polemikí Aeroportía' (Air Force) took the 5 remaining ex-naval machines. They were given the codes 'M31-35'.

1931: Scarff rings were attached to the airframes for the back seat.

Jan 9, 1934: 'M35' crashed in Tatoi – crew was killed.

1935: The remaining machines were SOC.

## Colours and Insignia

The machines were delivered in overall aluminum with the engine metal area painted in a rather glossy black, with dark blue roundels over / under the wings and the rudder also painted dark blue–white–dark blue (in vertical stripes). Soon after, the roundel was also painted on fuselage sides (unusually for the

period), followed by the black '131-136' codes. There is no available photo to show the codes were repeated under the lower wing, but this is very possible. The dark blue faded easily as seen in later photos.

The colors and insignia were retained in their 'Polemiki Aeroportia' service, but the codes changed to black 'M31-35'.

## In Kit Form

So a Type 81A was a Mk IV with Puma power plant. As the Mk IV has never been kitted, the modeller will have to convert a Mk I kit (the old Airfix or -better- the new Roden) according to scale plans. Sources where useful info about 'Type 81A' could be found are:

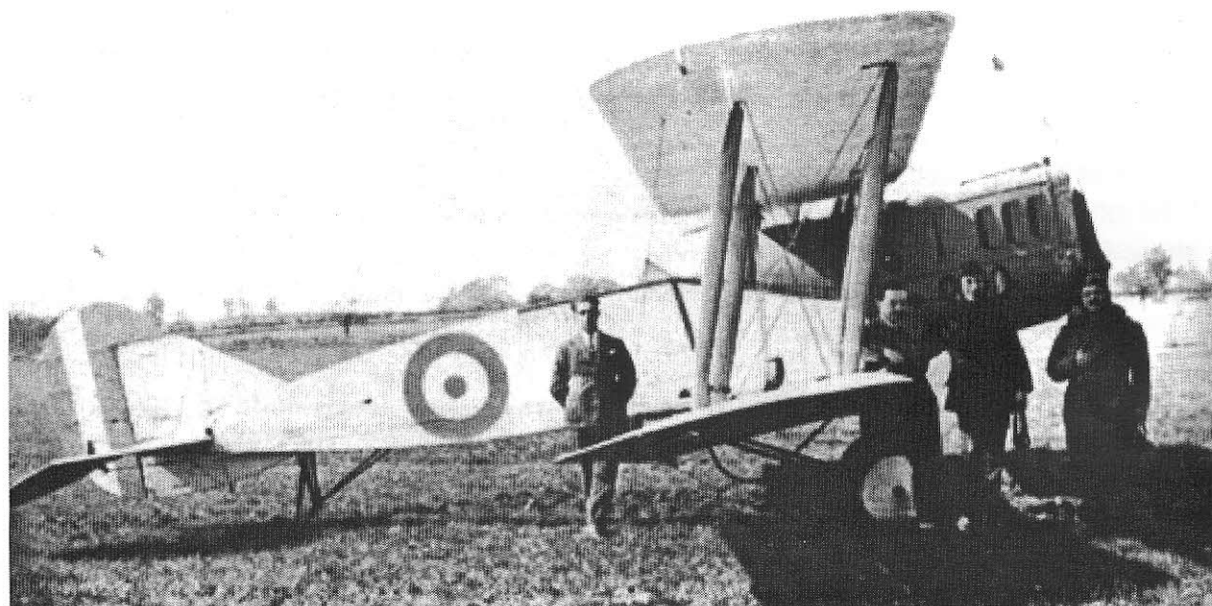
- C. Bowyer, 'Bristol F2B Fighter - King of Two Seats', Shepperton 1985
- J. Bruce, Windsock Datafile Special, 'Bristol Fighter, Vol 2', Herfordshire 1998
- 'Aviation News' No 2/11 (scale plans)

(PS: The people from Roden have promised to the author to release a Type 81A kit in the future...)

## Data:

1 x 230 hp Siddeley Puma  
Span: 11.96 m  
Length: 7.92 m  
Height: 2.93 m

2Lt Stamatis J Andreou (HAF), SAFCH #1602, IPMS-Hellas #580, 1, Amigdaleas Str., GR - 413 35 Larissa, Greece



This Bristol F.2B Mk IV was also known as the Puma School variant. The aircraft was supplied to the Royal Hellenic Navy at Phaleron Bay, Greece, during 1925.



# Lockheed Hudsons (A-29) for the Chinese Air Force during World War 2

W. Yip

China became eligible for lend-lease aid as early as May 6, 1941. Though the formal lend-lease agreement was not signed until June 2, 1942, the Chinese government had been actively seeking military aid from the US since 1940.

In November 1940, Generalissimo Chiang Kai-Shek of the Central Chinese Government sent a mission to the US to negotiate arms purchase. The China mission presented its 500 combat planes request to President Roosevelt's Liaison Committee. This civilian agency was set up to co-ordinate foreign arms purchases in the US. In addition to the 500 combat planes, the request also included crews to fly them, 150 basic trainers and 10 transport aircraft, 20 percent spare parts plus materials to build 14 major airfields and 122 landing strips, and ammunition and ordinance for one-year operation. In December 1940, President Roosevelt approved the military aid for China. The 500 combat planes request comprised of 350 fighters and 150 light bombers:

- 250 Brewster's F2As \* or Grumman Model G36A (eqv. F4F-4)
- 100 Curtiss-Wright P-40s
- 100 Lockheed Hudsons
- 50 Douglas B-23s.

\* Reference 2 identified the Brewster type as "4F-4" which appears not to be correct. The author believes that it should be "F2A".

Obviously, this was in conflicts with the British requests that already had flooded the American aircraft manufacturers with tons of orders. In the end, the British Purchasing Commission agreed to let China have 100 P-40Bs, originally allotted to Britain, if the Chinese in turn would yield their priority rights to 100 later model fighters. These 100 P-40Bs were assigned to the American Volunteer Group (AVG) which was also known as the Flying Tigers. In May of 1941, to complete the goal of obtaining 250 fighters, another arrangement was made with Britain to release 144 Vultee's Model 48 fighters and with the US for 125 Republic's P-43As. These were added to the USAAF Aircraft Procurement Program E (the first defense aid) with Contract DA-55 for 125 RP-43As and Contract DA-272 for 144 P-66s. For the light bomber request, only 33 Lockheed Hudsons and another 33 Douglas Havocs were made available from the British contract. In the summer of 1941, 33 Lockheed Hudsons were released for delivery to China. They were originally

planned to be delivered before the end of 1941 but various delays had caused their delivery to slide well into 1942. The Douglas Havoc order was cancelled and according to Reference 7, the order was diverted to the Netherlands East Indies.

The Royal Air Force (RAF) Hudson was the military version of the twin-engine mid-wing Lockheed Model 14 Super Electra airliner. The Hudson was designed per the RAF's requirement for general maritime reconnaissance and was purchased in great numbers by Britain before the lend-lease. Under the lend-lease term, 800 Lockheed Hudson Mk IIIs, originally ordered by the British Purchasing Commission, received revised RAF designation of Hudson Mk IIIA. The "A" suffix stands for "America". This was used by RAF for essentially all American types of airplane supplied to Britain under lend-lease to distinguish them from those purchased through the British Purchasing Commission before the lend-lease. USAAF designation of A-29 and serials were assigned to these Lockheed Hudsons for accounting purpose because they were ordered through the USAAF contracts. Among these 800 A-29s, 184 were later built with convertible interior for troop transport and were re-designated A-29A. They were still identified as Hudson Mk IIIA by the RAF.

## Serials assigned to the 616 A-29s:

RAF serials	#	USAAF serials
BW361/766	(406)	41-23223/23628
BW768/777	(10)	41-23630/23639
FH167/366	(200)	41-36968/37167
Total	616	

## Serials assigned to the 184 A-29As:

RAF serials	#	USAAF serials
BW767(1)		41-23629
FH367/466	(100)	41-37168/37267
FK731/813	(83)	42-47287/47369
Total	184	

The Hudsons were built at the Lockheed Burbank Plant in California. The early batch of lend-lease Hudsons were accepted by the USAAF in late 1941 and 33 were assigned to the Ferrying Command in April of 1942 for delivery to China. AF records show that they were available as early as September of 1941. Reference 1 indicates that they were returned to Burbank plant for modifications. The author believes that they were

returned to Lockheed for modification into the light bomber configuration from the general reconnaissance configuration which was the original specification from Britain. They were ferried by the Ferrying Command to Palm Beach AFB in West Palm Beach, Florida, through the Caribbean to the eastern most tip of Brazil, across the South Atlantic Ocean, through Central Africa to the Middle East, then to India. Ferrying these Hudsons from California to China through the Pacific Ocean seemed to be a much shorter route. However, at that time, the coastal region of China had already been occupied by Japan and therefore, the route through Africa and the Middle East was the only viable option. A number of the Hudsons were written off during the ferrying flight. Because of the urgent need of this type by Britain, no additional Hudsons were allocated to China in the early part of 1942 to replace those that were written off during ferrying flights with the exception of one. Therefore, with the total of 34 Hudsons assigned, only 20 reached China. AF records show that 17 Hudsons were transferred to Chinese Air Force on 9/1/42, 1 on 9/11/42, 1 on 10/10/42, and 1 on 10/21/42. (See Table One for the list of Hudsons allotted and delivered to China)

According to Reference 5, in the summer of 1942, the Chinese Air Force's Second Bomber Group (BG) air crews were informed to receive 20 Hudsons in early August 1942 in India. Eventually, the Hudsons arrived at the airport south of the Szechwan Province's capital city of Chengdu where they received their transition training from the American pilots. The training lasted until October. Reference 5 states that only 19 Hudsons were received. AF record shows that one was written off in Kano, Africa during the ferrying flight. This is very close, though not exactly the same number, to the number of Hudsons the author is able to identify in AF records to have been transferred to China. Reference 8 quotes the Chinese Air Force received 23 A-29s and 3 A-29As. Again, the count is different from Reference 5 and also from what the author was able to identify from AF records.

In Chinese Air Force service, the Hudsons replaced the Soviet Union's Tupolev SB-III as light bombers. (The Tupolev SB2s supplied to China had the SB-2M-103 engines instead of the SB-2-M-100 engines found in normal SB2s and they were referred to as SB3 or SB.III.) They equipped the Ninth Bomber Squadron and the 30<sup>th</sup> Bomber Squadron in August 1942 and the 11<sup>th</sup> Bomber Squadron in October 1942. These squadrons all belonged to the Second BG of the Chinese Air Force. Reference 5 has a detail service history of these

Hudsons. In 1944, when the B-25s became available, all the air crew of the Second BG went to the US for the transition training and so a number of the A-29s were transferred to the Central Air Transport Corporation (CATC) as civil airliners.

41-23250(BW388) was referenced by many sources to have been allotted to China. AF record the author was able to obtain did not identify that this Hudson was assigned to China. However, one reliable source states that it was. The author believes that this Hudson was originally assigned to China but was written off at March Field on April 2, 1942. 41-23583(BW721) was selected in June to be its replacement though this Hudson was also written off in the US. This might have explained why this particular Hudson was assigned to the Ferrying Command for China in a much later date than all other Hudsons assigned to China (See Table 1). If BW388 was taken into consideration, 34 instead of 33 Hudsons were actually allotted to China.

According to Reference 1, in addition to the 34 Hudsons supplied in 1942, 3 more Hudsons were also transferred to the Chinese Air Force, two in May 1943 and one in March 1945. (See Table 2 for the list of A-29As supplied to China)

As documented in Reference 3, there was a meeting between General Stilwell and Generalissimo Chiang Kai-Shek on June 26, 1942 and part of the subject of discussion was that a flight of A-29s, en route to China, was held up at Khartoum, Egypt for possible use by the Allies due to the deterioration of the Allied front in North Africa. In the meeting, General Stilwell told the Generalissimo that a squadron of the light bombers, A-29, which were on their way from America to China, had been diverted at Khartoum, south of Cairo, for use in Egypt by the Allies. The Generalissimo asked how many of the A-29 light bombers have been so diverted. General Stilwell said that he did not know but he did know that the number of A-29 bombers being sent by America to China was 33. General Stilwell was unable to tell how many of them had been diverted for use in Egypt and the telegram from Washington did not mention whether there would be replacements for them or whether those A-29 bombers which arrived in Egypt later would continue their journey to China.

Since the 34<sup>th</sup> Hudson (BW721) was selected to be the replacement as late as June 9, it is not believed that General Stilwell was aware of this addition in the meeting with the Generalissimo on June 26. So the quote of 33 Hudsons was understandable. Also, the word "sent" used by General Stilwell in his response to

the Generalissimo's question appears to be confusing and might have given the readers the wrong impression that all the Hudsons assigned to China actually left the Continental US for China. AF records show that among the 34 Hudsons assigned to China, 13 were written off in the Continental US. Among the remaining 21 Hudsons ferried to China, one was written off in Kano, Africa and so only 20 eventually reached China. Therefore, essentially all the Hudsons that were held up in Khartoum were eventually released and supplied to China and none was permanently diverted for USAAF or RAF use. Reference 4 has a map showing the ferrying flight route of the P-40s supplied to China. The Hudson's ferrying route should be very similar.

Serial numbers applied by the Chinese Air Force to these Hudsons appear to have been quite different from the usual practice that consisted of a one or two digit squadron number followed by a two-digit serial assigned to individual aircraft. According to a Hudson model picture shown in Reference 5, serial B31069 can be found on the tail fins. Similar type of serials, meaning B31XXX, could be found only on the B-25s supplied to China. The exact meaning of this serial type is not known. The author can only speculate that these serials might have been assigned only to the light bombers supplied to China from the US through lend lease because none of this serial type could be found in any other type of aircraft in Chinese Air Force service. The B prefix appears to have stood for "Bomber" and the first two digits, "31", might have meant the year this serial type was created or the year the aircraft was received and put in service which was 1942. In terms of the China calendar, 1942 was the 31<sup>st</sup> year since the establishment of the China Republic. The last three digits appear to be used as the serial numbers assigned

to individual aircraft.

In summary, 34 RAF Hudsons (A-29s) were identified from AF records to have been diverted from RAF's allotment to the Chinese Air Force. However, only 20 reached China in 1942. 2 additional Hudsons (A-29As) were delivered in 1943 and one more Hudson (A-29A) in 1945 which was used as spares.

Author's Note: This article drew materials heavily from References 2 and 3, supplemented by USAAF aircraft records from Reference 6. This article is by no means complete. Readers' comments are kindly solicited. □

W. Yip (SAFCH #1421) wyip805@charter.net.

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- 1) The Lockheed Twin, by Peter J. Marson published by Air-Britain.
- 2) US Army in World War II, The China-Burma-India Theatre. Part 1: The United States and China become Allies.
- 3) US Army in World War II, The China-Burma-India Theatre. Part II: Plans for Breaking the Blockade of China (May 1942-March 1943)
- 4) AAHS Journal Volume 23, #1 (Spring 1978), "Ferry Flight" by C.H. Laughlin
- 5) Article on Chinese Air Force Hudson in the Chinese Air Force in Action, series 3 published by Wings of China Publications on 3/30/1993.
- 6) USAAF aircraft record ACR-32
- 7) [www.warbirdforum.com/dunnp661.htm](http://www.warbirdforum.com/dunnp661.htm)
- 8) Lockheed Aircraft since 1913, by Rene J. Francillon, published by Putnam.

## Table 1

### List of Lockheed Hudsons Supplied to China in 1942

USAAF(RAF)

Serials	Date	Remarks
41-23247(BW385)	4/6/42	Wreck date not stated. Condemned on 9/18/42 in continental US. Reason not stated.
41-23248(BW386)	4/6/42	to Chinese Air Force (CAF), 9/1/42
41-23249(BW387)	4/15/42	to CAF, 9/1/42
41-23250(BW388)	See Note	Wrecked at March Field, 4/2/42, plane condemned
41-23251(BW389)	4/6/42	Wrecked, 5/31/42 Lowry field, plane condemned
41-23252(BW390)	4/6/42	Wrecked, 5/29/42 Lowry field, plane condemned.

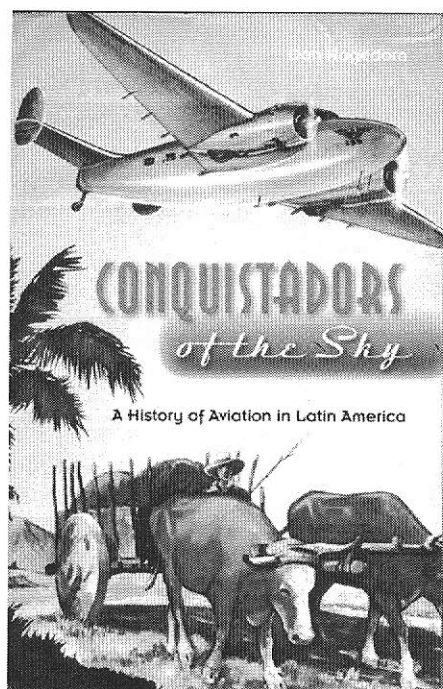


41-23253(BW391)	4/6/42	Damaged at Gainesville, FL, 6/24/42, repaired, not supplied to CAF, reason unknown, condemned in US 5/4/43.
41-23254(BW392)	4/6/42	to CAF, 9/1/42
41-23255(BW393)	4/6/42	Wrecked, 6/3/42 Lowry field, plane condemned.
41-23256(BW394)	4/6/42	to CAF, 9/1/42
41-23257(BW395)	4/6/42	Wrecked 7/9/42, FL, repaired, to CAF 10/21/42, diverted to FEAF 5/12/45, returned to China on 1/4/46.
41-23258(BW396)	4/6/42	to CAF, 9/1/42
41-23259(BW397)	4/6/42	to CAF, 9/1/42
41-23260(BW398)	4/6/42	Crashed near Lebanon, Ohio, 6/30/42, plane condemned
41-23282(BW420)	4/15/42	to CAF, 9/1/42
41-23284(BW422)	4/15/42	to CAF, 9/1/42
41-23286(BW424)	4/15/42	to CAF, 9/11/42
41-23287(BW425)	4/24/42	to CAF, 9/1/42
41-23288(BW426)	4/15/42	to CAF, 9/1/42
41-23289(BW427)	4/15/42	to CAF, 9/1/42
41-23290(BW428)	4/24/42	to CAF, 10/10/42
41-23291(BW429)	4/15/42	Wrecked on 7/28/42, plane condemned
41-23583(BW721)	6/9/42	Wrecked on 7/20/42, plane condemned.
41-23587(BW725)	4/3/42	to CAF, 9/1/42
41-23588(BW726)	4/7/42	Wrecked, 5/22/42 Lowry Field, plane condemned
41-23589(BW727)	4/7/42	Wrecked, 4/27/42 Lowry field, plane condemned
41-23590(BW728)	4/7/42	to CAF, 9/1/42
41-23591(BW729)	4/7/42	Wrecked, 6/13/42 Lowry Field, plane condemned
41-23592(BW730)	4/7/42	to CAF, 9/1/42
41-23593(BW731)	4/7/42	Crashed & burned on 7/30/42 at Kano, Africa during ferrying flight.
41-23594(BW732)	4/6/42	to CAF, 9/1/42
41-23595(BW733)	3/26/42	to CAF, 9/1/42
41-23596(BW734)	4/7/42	Wrecked, 4/9/42 Lowry field, plane condemned.
41-23597(BW735)	4/7/42	to CAF, 9/1/42

Note for BW388: No date assigned. It was written off on 4/2/42 and is believed to have been written before it was assigned to the Ferrying Command (FC).

Table 2  
List of Lockheed Hudsons Supplied to China between 1943 & 1945

USAAF(RAF) serials	Remarks
41-37251(FH450)	Accepted by USAAF 5/12/42, not taken up by RAF, returned to Lockheed for modification, delivered to CAF on 5/25/43
41-37188(FH387)	Accepted by USAAF 4/1942, not taken up by RAF, returned to Lockheed for modification, delivered to CAF on 5/25/43
41-37210(FH409)	Delivered to RAF as FH409, assigned to 353 squadron, delivered to CAF on 3/29/45. Note: FH409 of RAF became unserviceable in China and was later handed over to Chinese as a source of spares.



**Conquistadors of the Sky: A History of Aviation in Latin America**, by Dan Hagedorn. Hardbound. 587 pages, 16 color photos, 232 b/w photos. (2008). Published by University Press of Florida. Website: [www.upf.com](http://www.upf.com). Telephone: 1-800-226-3822. ISBN 9780813032498. \$39.95.

As Monty Python would say: "Now for something completely different." While the books by Dan Hagedorn that have been reviewed in previous issues of SAFO have focused mainly on aircraft, his latest book, published by an academic press, is concerned more about people and events. This does make for a more challenging reading, but the extra effort pays off in a better understanding of aviation history in Latin America.

The first chapter, "Myths and Legends", gets the short shift (4 pages) it deserves.

The second chapter, "Pioneers" (89 pages), covers flying in Latin America prior to WWI, including a description of the "first aerial attack on surface ships under combat conditions in May 1913, during the Mexican Revolution."

The third chapter, "1914-1918", (36 pages), describes how the Latin American countries, cut off from aviation developments and supplies from Europe and America, kept their aviation evolving.

In the fourth chapter, "Airlines, Air Wars, and Foreign Missions" (179

pages), the author adopts the unusual format of covering all countries each year from 1919 to 1941. This leads to some unnecessary duplication and it demands concentration by the reader. However, the diligent scholar will benefit by going back and rereading the story of each country through the years.

We are now a little more than halfway through the book, and all the hard work by the reader begins to pay off as the author begins to describe the effects of WWII on Latin American aviation.

Chapter 5, "Yankee Influence: Defense Aid and Lend-Lease" (25 pages), describes the foresight of the US government in using military missions and Lend-Lease to build trust in US products and to systematically erode Nazi and Italian influence in Latin America. This ensured the continued flow of vitally needed raw materials to the US and provided the bases from which to defend the Panama Canal. Two case studies are presented: Bolivia and Haiti. In the latter, a US instructor and his Haitian students flew antisubmarine patrols over the Windward Passage between Hispaniola and Cuba in obsolete Douglas O-38E observation planes.

Chapter 6, "World War II" (75 pages), begins with a study of Nazi submarine activities in the Caribbean and the response of the USAAF, USN, and RAF. A surprise to this reviewer was how effective the much maligned B-18 Bolo was in the antisubmarine role. This section is accompanied by a 6-page table "Allied Contact with Submarines, Trinidad Area, February 1942 – September 1944" listing Date, Unit, Aircraft, and Submarine's U-number and if any damage was sustained and if the sinking of the sub was confirmed. Wartime activities of the Latin American countries are covered. These consisted mainly of uneventful antisubmarine patrols except for a Brazilian PBY sinking U-199 on 31 July 1943 and a Mexican AT-6's unsuccessful attack on U-129 on 5 July 1942. Brazilian P-47s in Italy and Mexican P-47 in the Philippines are also described.

Chapter 7, "The Postwar Boom" (35 pages), describes the status of civil aviation in Latin America in 1961 when US aircraft came to dominate the market. Listed for each country are the number of

airports, number of airlines and their equipment, and the number of aircraft broken down by general type (Piper, Cessna, etc.) and use (commercial, club, private, etc.). For example Brazil had 2,655 aircraft on the civil register, while Haiti had 11.

Chapter 8, "The American Republics Projects and the Rio Pact" (30 pages). This chapter takes up the story of military aviation in Latin America after WWII. However, do not expect an "order of battle" presentation for the emphasis is on the agreements that allowed Latin American nations to be supplied with the latest in American military aircraft beginning with the F-47 and B-25 of the immediate post-war period and later with T-33, F-80, AT-37, and F5. Also discussed is the State Department obsession of preventing an "arms race" that open the Western Hemisphere to aircraft from Britain, France, Italy, and Israel.

Chapter 9, "The Cold War and Beyond" (66 pages) is somewhat misnamed. The first section is a comprehensive review of all the aircraft of indigenous design and manufacture from the beginning aviation with particular attention to successful aviation industries in Argentina, Brazil, and Chile. A second section briefly lists all the revolutions and border conflicts that plagued the countries of Latin America. [Ed: This is brief summary of Dan's *Latin American Air Wars*. If you have yet to download the text for this book, note that the website has been changed to [hikokiwarplanes.co.uk](http://hikokiwarplanes.co.uk).] The final two sections cover the postwar commercial airline boom and combating drug trafficking.

In keeping with the academic flavor, there are 28 pages of Notes and an Index of 19 pages.

*Conquistadors of the Skies* is not the book for the casual reader. However, the serious reader looking for information that ties together individual events of Latin American aviation history gathered from an article here and an article there it is a gold mine of information. There are 232 b&w and 16 color photos of aircraft (military and civil), people, airline posters, etc.

This book is highly recommended, and at \$39.95, it is a bargain. □

**EI F-51D Mustang; Un Pura Sangre en el Uruguay** The F-51D Mustang in Uruguay

The third in Rolando Grasso Alfaro's Serie Aeronaves Militares Uruguayas is a softcover book of 190 pages, much larger than the earlier booklets covering the North American AT-6/SNJ Texan and the Curtiss SNC-1 Falcon. The emphasis on operational detail based on official records continues.

"EI F-51D Mustang; Un Pura Sangre en el Uruguay" is the title; the middle two words mean "thoroughbred." The aircraft served reliably for the decade 1950-60. Grasso covers the acquisition and ferry flight of the 25 planes (serials 250-274) in California; operational details; and the sale of eight survivors to Bolivia. The story of several that exist today in the US is also told. The individual history of

each aircraft is listed, including the definitive linkage to their original identities.

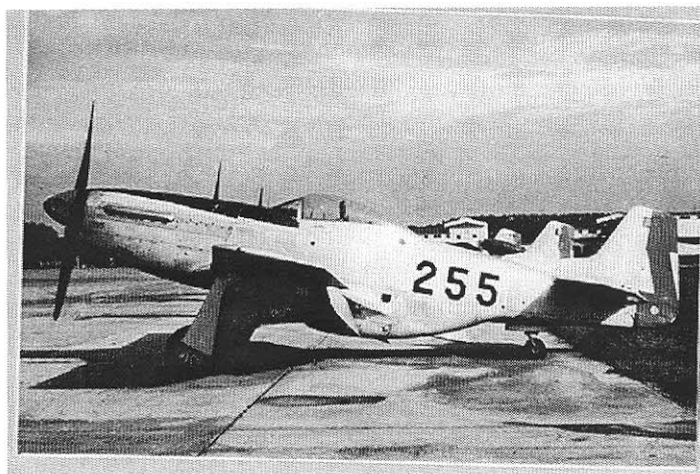
There is a seventy-page English summary. It amounts nearly to a complete translation, slightly awkward in phrasing but entirely readable. There are no less than 179 black and white photos. Color photos adorn the front and back cover (especially of the most well-known of the herd, serial 265.) There are several pages of 1/72 profiles in color. Model builders will find little in the way of varied schemes.

The Uruguayan Mustangs never saw combat. The only SAFO-worthy incidents occurred in 1955 with the anti-Peron revolution in neighboring Argentina. Also of interest is the interaction with US advisors and officialdom.

Mustang enthusiasts can acquire the book from the author in Montevideo, via [rgrasso@adinet.com.uy](mailto:rgrasso@adinet.com.uy). Gary Kuhn (SAFCH #257) has a supply of twenty to sell at forty dollars postpaid in the US/Canada or forty euros postpaid. Contact [ggkuhn@earthlink.net](mailto:ggkuhn@earthlink.net).

Photos: Serial 265 is also the cover photo on the Grasso book -- a different view of the display of military aircraft in the center of Montevideo in 8/1957. It has the only unit badge (cat and mouse on the fin), as employed on some of the aircraft. The other photo illustrates simply how plainly marked the aircraft were. The photos should be credited to the Museo Aeronautico. I do not know who were the photographers.

Gary Kuhn (SAFCH #25



**Wings over Burma and the Himalayas**, by John Gotdon. \$15.95 haredcover. John Gordon, 337 Gordon Rd., Middlenurgh, NY 12122, USA.

[Ed: Although I usually don't like to present a publisher's blurb without having the book reviewed, the information below seems to lack the usual publisher's hyperbola. In addition, the subject matter sounds interesting enough to appeal to many SAFO readers.]

"Hard hitting, fast reading, compelling action and detail, Jack Gordon's historical novel, Wings Over Burma and the Himalayas, tells it like it really was for the WWII American airmen of the 27th Troop Carrier Squadron who flew their C-47's to drop ammo, rations and supplies under cover

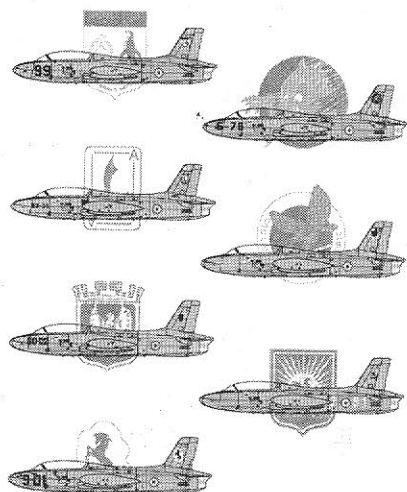
of darkness to Wingate's Chindits behind the Japanese lines in the Burmese jungles. They crossed the treacherous, uncharted skies of the Hump, did the same for the Chinese Nationalists on the Salween front in mountainous Yunnan Province to reopen the Burma Road. Through violent monsoon up and down drafts, St. Elmo's fire and lightning dancing on the wing tips, Jap ground fire and aerial action, the unsung transport crews did their jobs, suffered their losses in the hair-raising saga of a campaign which stretched from sweltering Burmese rain forests to the high peaks of the Himalayas.

"Portrayed as fiction in order to capture the experience of more than one man, Wings could only have been written by one who was there. Not only are

breath-taking scenes of air war described as though you were in the cockpit of a legendary Douglas transport but the give and take of G.I. existence comes through. Air Corps slang, interaction with allies and enemies is truly authentic.

"Now in its second printing, Wings is more than a good read. It is the look back at how we were and what we did. The pride of veterans in how we met our generational challenge flows from these pages. Wings is recommended not only for those who were there, their children and grandchildren but for anyone interested in a true portrayal of the hearts and minds of those who played a part in the American experience in southeast Asia." □





**Italian Air Force Aermacchi MB-326.**  
 Squadron Insignia and Codes (1/48-scale  
 decals) Small Model Accessories SWAS

48002. Available from: Mondoridotto di Mario Bartoli, 56011 Calci – PI, Italy. Website: [www.mondoridotto.it](http://www.mondoridotto.it). E-mail: [mario@mondoridotto.it](mailto:mario@mondoridotto.it).

This 138 mm by 200 mm sheet contains all the squadron insignia and codes for seven overall orange (FS 12197) Italian Aermacchi MB-326 jet trainers. However, there are only sufficient national roundels and stenciling for one aircraft.

Squadrons cover are: Scuola Volo Iniziale (Fight Training Squadron), 606<sup>a</sup> Squadriglia Collegamenti (606<sup>th</sup> Liaison Squadron), 653<sup>a</sup> Squadriglia Collegamenti, 602<sup>a</sup> Squadriglia Collegamenti, 60<sup>mo</sup> Stormo, 636<sup>a</sup> Squadriglia Collegamenti, and 609<sup>a</sup> Squadriglia Collegamenti. The printing and registration of the decals are flawless.

The 12-page all-color instruction sheet presents port and starboard views of all aircraft and a single set of port,

starboard, top and bottom views showing the placement of the stenciling.

[Ed: The appeal of these decals for non-Italian modelers could have been significantly increased if instead of seven Italian MB-326 one had been replaced by decals for a non-Italian machine. Examples that immediately come to mind are MB-326 in service with Australia, South Africa, and Brazil.]

Also available from Mondoridotto are 1/72-scale and 1/48 scale decals for Italian F-104. The 1/48-scale decals the MB-326 and F-104 are available from the SAFCH Sales Service for \$10.00 each in the USA and \$12.00 each elsewhere.

Mondoridotto also sells 1/48-scale resin sets (Fiat GR-91R detail set, Martin Baker seats for the MB-326, & fuel tanks for WWI Albatros fighters) and 1/72-rein figures (Italian WWII pilots). See their website for details. □

## -letters-letters-letters-letters- letters- letters-

"I just discovered SAFO from January 2006 (!) in a stack of things that I had set aside to file, and realized that I had never read it or commented on it to you. I truly apologize. I've just had too many things on my plate, I guess.

"I did want to comment on friend Captain Jorge Delgado's article on the Aviacion Naval Ecuatoriana Cessna 337s, however. He is correct that the ANE received at least three 337s. They were: T337F c/n 01395 as AN-211 in October 1971; T337F c/n 01396 as AN-212 in October 1971; T337G c/n 0089 as ANE-206 24 April 1973.

"You will immediately note the discrepancy between the three serials that Jorge reports in his article (AN-204, AN-206 and AN-211) and the above. What further aggravates the situation is that ANE-202 was also reliably reported 20 May 1975 and ANE-302 has also been reported but not verified to my satisfaction. I wonder if Jorge can help reconcile these differences. I suspect they are three aircraft reseried (except for ANE-302) but can't figure out why they would do this."

Dan Hagedorn (SAFCH #394).

## -Websites-Websites-Websites-Websites-Websites-

"A new website for the *Khmer Air Force* from 1954 to 1975 is now available: [www.khmerairforce.com](http://www.khmerairforce.com). It covers the history of the air force of the small nation of Cambodia during the Vietnam-war era. This story, about which little has been written is told by retired Cambodian air force general So Satto." Darasy Var (SAFCH #1319). France.

"On the Web there is a film clip from Austrian archives showing the Wright Brothers demonstrating their plane in Italy in 1909. Items of note are the string turn-and-slip indicator; works just like on a glider. What is fantastic is there was an on-board camera on the Wright plane and the last part of this film shows it. It's crystal clear. Wilbur Wright is at the controls on both of the flight. You can enlarge it to full screen. There're Links to information about the film.

[www.europafilmtreasures.eu/PY/322/fiche\\_technique.htm?ID=322](http://www.europafilmtreasures.eu/PY/322/fiche_technique.htm?ID=322)

"If you haven't seen it, you must see this important film." David Loughhead (SAFCH #1378) Australia.

## -Disposals-Disposals-Disposals-Disposals-Disposals-

**Free!** Posters for the Watsonville West Coast FlyIn (In mailing tube.) Large 1974 (1); 1979 (1); 1982 (1); 1983 (1); 1984 (1); 1985 (1) Small: 1983 (3). All you pay is the postage. Contact the editorial office at [saf@redshift](mailto:saf@redshift) or Jim Sanders, 27965 Berwick Dr., Carmel, CA 93923, USA

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Su-25UB Frogfoot 8.00

ZTS

PZL-37A/B 6.00

RWD-5bis 4.00

Il-2m3 5.00

ZVEZDA/ITALERI (Russian)

7212 Mi-24E 10.00

7213 Mi-24D 10.00

7216 Ka-5010.00

**KITS (1/144)**

AIRFIX

Boeing 727 (no decals/box) 8.00

**KITS (Resin & Vacuum)**

BROPLAN vacuumform

1/48 VL Pyry 15.00

1/48 TS-8 Bies 15.00

\*\*\* 1/48 PZL P.11b-L 20.00

1/72 Me-26310 20.00

\*\*\* 1/72 Heinkel HD24 20.00

CECO Bulgaria (resin)

1/72 German Glider Bomber 5.00

CHOROSZY MODELBU (1/72 resin)

A24 CWL WZ-X Jupiter 27.00

A25 PZL L-2 27.00

B25 Lublin R-VIII HS 35.00

DAEDALUS (1/72 resin)

\*\*\* J6A/B Jaktflak II 30.00

\*\*\* Ö1 Tummelisa 41.00

DUBENA Vacuumform (1/72)

LaGG-3 6.00

LaG-5 6.00

Jak-15 6.00

Jak-17 6.00

FALCON Vacuumform (1/48)

Martin Baker MB.5 9.50

Hawker Sea Fury 9.50

Seafire 47 9.50

La-5FN 9.50

F-89D Scorpion 15.00

FALCON CONVERSIONS (1/48)

Spitfire XIV 5.00

FUN MODEL Vacuumform (1/48)

Yak-38 12.00

JMK Vacuumform (1/72)

P-51B 6.00

P-51C 6.00

LINO Vacuumform (1/72)

PZL 130 Oriik 6.00

MARFIX Vacuumform (1/72)

PZL-130 Oriik 6.00

PZL I-22 Iryd 6.00

Harrier GR.3 6.00

Yak-38 6.00

Miniplast (vacuumform)

PZL P-43 Sum (1/48) 6.00

MPM (vacuumform/resin)

Suchoj Su-9 (1/72) 10.00

Polikarpov R-5 (1/72) 10.00

MPM/KARO (vacuumform/resin)

Avia B.534 (1/48) 10.00

REFEX Vacuumform (1/72)

LaGG-3 6.00

RUSSIA Vacuumform (1/72)

Il-4 10.00

Yak-4 10.00

Ju-87B 8.00

Bf-109F 6.00

Su-6 8.00

MiG-9 6.00

Yak-9 6.00

P-63 6.00

MiG-3 6.00

La-15 6.00

SIERRA Vacuumform (1/48)

Nieuport 11 10.00

WAKU Vacuumform (1/72)

Jak-15 6.00

Yak-17 6.00

Yak-11 6.00

P-40M 6.00

## **CARD MODELS**

MATY MODELARZ (1/25 - card)

Po-2 5.00

Zlin 24M 5.00

SZD-31 Zefir 4 (Glider) 5.00

RWD-13 5.00

RWD-17 5.00

MATY MODELARZ (1/33 - card)

LaGG-3 5.00

Mosquito 6.00

PZL-106A Kruk 5.00

MC-200 Saeta 5.00

MATY MODELARZ (1/50 - card)

Il-28 5.00

Walrus 5.00

Wellington 6.00

MiG-25 5.00

MATY MODELARZ (ship - card)

Kuter Torpedowy 5.00

Smok (man-o-war) 5.00

Orzel (submarine) 5.00

Zawisza Czarny (sailboat) 5.00

Rodney 5.00

Santa Maria 5.00

RUSSIAN CARD MODEL (1/32)

La-5 5.00

Il-10 (w/plastic parts) 8.00

**ACCESSORIES**

ACE Ukraine (etched brass)

7209 Mil Mi-24 Hind 7.00

KP (etched metal)

MiG-21MF (1/72) 6.00

OZ MODS

RCR (1/72 etched metal)

S05 Macchi 200 9.00

S11 Macchi 202/205 9.00

S12 Reggiane 2000/2005 9.00

RED ROO MODELS

1/48 TA-4G Skyhawk 7.00

1/48 F2A-3/339 conversion 4.00

RUSSIAN WEAPONS (1/72)

B001 SPPU-22-01 Cannon Pod 2.00

B002 H-31A/P Missile 3.00

B003 H-25MR/MT Millile 3.00

B004 H-25ML/MP Missile 3.00

B005 UB-32M/57 Rocket Pod 2.00

B006 UB-16/

72-038 Fw 190 Insignia	6.00	72-034 F/A-18 Hornet Stencils	5.00	48-007 Polar DHC-3 Otter	9.00	Fw-190D	2.00
*** DECAL ART (Italy)		72-035 MiG-17F/Lim-5 Fresco C	5.00	48-009 Polar Beaver, Part 2	9.00	Me-262	2.00
*** Italian Tornados (1/48)	10.00	72-036 F-86D/L Sabre Dog	5.00	48-010 Lockheed Hudson	9.00	P-61 Black Widow	5.00
72-038 Fw 190 Insignia	6.00	72-037 MiG-21bis	5.00	MICROSCALE DECALS (1/48)		Bristol Blenheim	5.00
*** DECAL ART (Italy)		72-040 MiG-19PM	5.00	*** 48-257 F/Rf-84F (China & Germany)	8.00	Swordfish	5.00
*** Italian Tornados (1/48)	10.00	72-043 Il-28/RT/U	5.00	MODEL-AIRE (1/72)		Avenger	5.00
DELTA AVIATION (1/72)		72-044 MiG-28A/B/G	5.00	MiG-29 & Mi-8	5.00	Curtiss P-40	5.00
72 005 Croatian AF	4.00	72-045 MiG-29 UB	5.00	MiG-21	5.00	Su-22M-4	5.00
US Air Force Europe 1950	6.00	72-047 F/Rf-84G	5.00	MODEL ART		VENTURA (1/32)	
DELTA HOBBY (1/72)		72-049 F-84G	5.00	48-001 Mirage 2000C	6.00	V3255 Australian P-51D	5.00
012 Dewoitine D.520	5.00	*** 72-050 Su-27 (See SAFO #119)	5.00	MODEL A (1/72)		V3265 Israeli Mosquitos	5.00
DUTCH DECALS		*** 72-051 F-14A (See SAFO #119)	5.00	MiG-15	5.00	V3263 Australian Beaufighters	5.00
48-021 Bristol Fighter Ni-21.23	6.00	HIT KIT Poland (1/72)		MORGAN (Singapore)		V4821 Spitfires: RAAF & RNZ	6.25
EDUARD		MiG-3, Su-2, etc. (1/48)	8.00	*** 1/48 Singapore A-4S	5.00		
72 002 Russian WWII Aces	8.00	HOBIC (1/48)		MPD Czech (1/72)		PLANS	
ESCI (1/72)		Kawasaki Ki-45 Nick	10.00	72 003 MiG-23BN Eagle's Head	3.00	REPLS-TECH	
#81 NS F-86 Sabre	3.00	ILAD DESIGN (1/48)		72 004 MiG-23BN CZAF Shark	3.00	Yak-55 1/30 (3 sheets)	4.00
#85 Dassault Mirage III	3.00	INSALCA Finland (1/72)		72 005 MiG-23 CZAF Shark	3.00	MODELARSKE LISTY (1/48)	
#86 Hawker Hunter	3.00	AC027 Bf 109 G-6/G-6	6.00	72 006 MiG-23 CZ Hell Fighter	3.00	Avia B-534	4.00
#93 De Havilland Vampire	3.00	AC029 Bf 109 G-2/G-2	6.00	72 023 MiG-23BN CZ Eagle	4.00	PLANY MODELARSKIE (1/33)	
#96 NA OV-10 Bronco	3.00	AC030 Bf 109 G-6/G-6 (1/48)	6.00	Su-25K Frogfoot CZ Shark	3.00	Il-2	6.00
#98 McDonnell F-101 Voodoo	3.00	KUIVALAINEN DECALS		Mi-24D CZ	3.00	Grumman AA-1B	5.00
#101 F-84 Thunderstreak	3.00	Finnish post-war rounds	8.00	Bf 109G-6 FAF	3.00	J-1 Prasnica (home-built)	5.00
FLYING COLORS AERODECAL (1/48)		LATVIA (1/72)		NECOMISA (Mexico)		SIGMA (1/25)	
48-102 Swed Mustang & Spitfire	7.00	Bell UH-1B (1/48)	2.00	Trains	6.00	PZL P-11c	3.00
P-51D or Spitfire XIX	4.00	Mi-4	2.00	PLASTIMODELLISMO Greece (1/72)		PZL-37b	3.00
FCM (Brazil)		Jaguar (Desert Storm)	1.50	Greek jets (1/72)	6.00	GUS MORFIS (1/12 flying scale)	
32-02 A-4, Tiger Moth, F5E, Bell 47	8.00	Bristol Beaufighter	2.00	Greek jets (1/48)	6.00	La-5/7	8.00
32-04 F-5E Tiger II/III	15.00	Westland Lynx	2.00	Greek rounds	6.00		
48-04 PT-17, AT-33, F-80, T-6D	8.00	Brewster Buffalo	2.00	#9 Swaztikas	5.00	POLISH PROFILES (TBU)	
*** 48-07A Bell 206, CAP 4		Grumman EA-6A	2.00	#10 Swaztikas	5.00	#08 SU-85 (Pancerna)	4.00
Paulistinha, Sea King, SH-34J	8.00	Martin B-26B	2.00	US Insignia	5.00	#09 SKOT (Opancersony)	4.00
48-10 T-28, P-40M, UH-1H, CM 170, S-55, T-37	8.00	Buccaneer (Desert Storm)	2.00	US Insignia (LowVis)	5.00	#11 DP (Karabin Maszynowy)	4.00
48-15 South American Mirage III, S-70, UH-1, F-5	8.00	Sikorsky HH-3E	2.00	PM TURKEY		#12 PT-76 (Czolg)	4.00
48-21 F-5A/E Tiger II	10.00	Sikorsky HH-3F (USCG)	2.00	Turkish Jets (1/48)	2.50	#14 PM-63 (Pistolet)	4.00
*** 72-33 Mirage Part 1 Brazil, Chile, Lebanon	12.00	F-4K RAF	2.00	PROPAGTEAM (1/48)		#15 T-54 (Czolg)	4.00
*** 72-34 Mirage Part 3 Brazil, Venezuela, Egypt	12.00	F-16 (Israeli)	2.00	48001 Slovak Insignia	4.00	#19 PZL-23 Karas	5.00
*** 72-35 Mirage: Part 3 Brazil, Chile, Peru, Argentina	12.00	Harrier GR-1	2.00	*** 48104 Tornado (RAF, Saudi Arabia, Germany, Italy)	10.00	#26 Iskra (Okret)	4.00
HAD Hungary		Hurricane 2c	2.00	PROPAGTEAM (1/72)		#27 Maly Oket Rakietowy	4.00
48-003 Bf 109	4.00	BF-109G (Croatian)	2.00	05-72-002 New Slovak Insignia	4.00	#28 Batory (Kuter Poscigowy)	4.00
48-005 MiG-23 MF	4.00	Ju-87	2.00	72-013/05 Su-25K "Anca"	4.00	#31 IS (Czolg Cieczki)	4.00
48-008 Bf 109G	5.00	Grumman Wildcat	2.00	72024/05 MiG-23 (Czech Eagle)	4.00	#38 3M6 (Przeciwpancerny)	4.00
48- MiG-23	6.00	MiG-21	2.00	RED ROO MODELS		#45 wz.36 (Aramta Przeciwpancerna)	4.00
48-012 P-51D	6.00	MiG-29	2.00	RAAF P-39 Airacobra (1/72)	4.50	#52 Jak-3	4.00
48-013 Bf 110	6.00	Yak-6	2.00	REVELL BRAZIL (1/32)		#53 Topas (Transporter Opancer.)	4.00
72-007 Su-22	4.00	FW-190A	2.00	*** Mirage 5 (France & Israel)	4.00	#54 Su-7	4.00
72- Mig-23	4.00	BF-109A	2.00	ROO DECAL		#58 Spitfire I-V	4.00
HI-DECAL Poland		Northrop F-5E	2.00	RAAF Mirage IIIO (1/48)	9.00	#64 ISU (Cieczkie Oziako Samo.)	4.00
48-001 MiG-21	8.00	Bristol Beaufighter	2.00	SAAD (1/48 & 1/72)		#66 MiG-3	5.00
48-002 F/A-18 Hornet	8.00	Fokker D-21 (Dutch & Finnish)	2.00	#2 (9 by 8 in) no instructions	5.00	#67 Bristol Beaufighter	5.00
48-004 F-18A/C Hornet	8.00	Junkers Ju-88 (Finnish)	3.00	#4 (8.5 by 11) no instructions	5.00	#69 Mustang I-III	4.00
48-005 MiG-17F/Lim-5	8.00	Republic P-47D (USSR)	3.00	SWEET DECALS (1/144)		#87 Defiant	4.00
48-006 F/A-18 Stencils	8.00	Mirage III (Spain & Israel)	3.00	*** SeaKing (JMSDF)	10.00	#88 Polikarpov I-153	5.00
48-007 Israeli F-4	8.00	F-4 (USMC)	3.00	*** SeaKing (USN/USMC/NASA)	10.00	#90 Yak-12	4.00
48-010 Su-17M4R/-22M4 Fitter	8.00	Corsair II	3.00	SKYLANCER		#95 Lancaster	5.00
48-011 Su-17M4 Fitter K	8.00	AW Whitley	3.00	CW-4801 Avro CF-100 Mk.5	9.00	#97 Zero	5.00
48-012 Su-7BKL/BMK Fitter A	8.00	BAC Lightning	3.00	CW-7204 Avro CF-100 Mk.5	7.00	#99 B-25 Mitchell	5.00
48-013 MiG-29A/B/G	8.00	BAC Buccaneer	3.00	SKYMODEL (Italy)		#101 Northrop P-61	4.00
48-014 F-86D/L Sabre Dog	8.00	DH Mosquito	3.00	48-013 Fiat G 55	8.00	#104 Halifax	4.00
48-015 MiG-29 UB	8.00	Vickers Wellington	3.00	48-036 Fiat CR 42	8.00	#106 MiG-21	4.00
48-017 F/Rf-84G	8.00	Bristol Blenheim	3.00	SMALL WORLD ACCESSORIES (Italy)		#107 Yakolev UT-2	4.00
48-019 F-84G	8.00	Hawker Hunter	3.00	*** 48001 (T-33, MB.320, F-104, Tornado)	13.00	#110 Junak	4.00
48-020 MiG-19 PM Farmer E	8.00	Hawker Tempest	3.00	SUPERSCALE		#114 Spad-VII/XIII	5.00
*** 48-021 F-14A (See SAFO #119)	8.00	Hawker Typhoon	3.00	48-435 A-37B Dragonflies	4.00	#116 F4F Hellcat	4.00
*** 48-022 Su-27 (See SAFO #119)	8.00	Fairey Firefly	3.00	TASMAN		#117 Lim-6bis	4.00
72-001 Tornado	5.00	Brewster Buffalo	3.00	48-05 RAAF A-Type Rounds		#119 Spitfire IX-XVI	4.00
72-002 Su-25K Frogfoot	5.00	Douglas A-20	3.00	Smaller Sizes	6.00	#122 F4U Corsair	4.00
72-003 Jaguar	5.00	Douglas Skyhawk	3.00	48-08 RAAF B-Type Rounds		#124 Mi-6	4.00
72-005 MiG-29	5.00	Grumman Avenger	3.00	Larger Sizes	6.00	#128 Fairey Battle	4.00
72-006 Mi-8/17	5.00	Grumman Bearcat	3.00	48-11 RAAF B-Type Rounds		#130 Piper L-4 Cub	5.00
72-007 SA 341/342 Gazelle	5.00	Grumman Helicat	3.00	Smaller Sizes	6.00	#134 PWS-26	5.00
72-008 Mi-24	5.00	Lockheed P-38J	3.00	TECHMOD Poland (1/72)			
72-009 F-15E	5.00	Phantom (RAF)	3.00	F4U Corsair	8.00	BOOKS	
72-010 A-10	5.00	F4U-I Corsair	3.00	Spitfire IX LF	4.00	ARGENTINA	
72-011 MiG-21MF/SMT	5.00	Messerschmidt Bf-110	3.00	F-18A	4.00	Serie Aeronaval	
72-012 Chinook	5.00	Northrop Black Widow	3.00	EE Lightning	3.00	*** #12 Super Etandard	10.00
72-013 Su-24 Fencer	5.00	Republic P-47D (USAAF)	3.00	Tempest	3.00	*** #14 S-2 Tracker & TurboTracker	10.00
72-014 AH-1 Sea Cobra	5.00	Supermarine Spitfire VIII	3.00	Typhoon	3.00	*** #15 Grumman Duck	10.00
72-015 MiG-23 Flogger	5.00	Lancaster	6.00	Westland Lynx	3.00	*** #17 Sikorsky S-55/H-19	10.00
72-016 Mirage 2000	5.00	B-17F	6.00	BF-109E	3.00	*** #19 O2U Corsair	10.00
72-017 MiG-27/23BN	5.00	LIFT HERE		F6F-3 Hellcat	3.00	*** #20 AerMacchi MB.326	10.00
72-019 L-39 Albatros	5.00	E-72H MiGs in Yugoslav Sky	11.00	P-51D Mustang	3.00	*** #21 Lockheed L-188 Electra	15.00
72-020 AH-64 Apache	5.00	LINDEN HILL DECALS		TECHMOD Poland (1/48)		*** #23 Lockheed P-2 Neptune	15.00
72-021 F-16C	5.00	72002 Russian MiG-23	8.00	Polish Fokker V.VII	10.00	Serie Fuerza Aerea	
72-022 MiG-15	5.00	72005 Flankers on Parade	17.00	*** 72009 L-39s of Central Asia	20.00	*** #5 Curtiss Hawk	10.00
72-023 F/A-18	5.00	72010 Heraldic Bears	12.00	TOM Modellbau		*** #8 Northrop 8A-2	10.00
72-024 Su-27 Flanker B	5.00	72011 Su-27 Stenciling	8.00	East German Insignia (1/32)	16.00	*** #12 Gloster Meteor FMk.4	15.00
72-025 Israeli F-4	5.00	72013 Mi-24 Stenciling	8.00	East German Insignia (1/48)	8.00	*** Martin 139W	10.00
72-026 Mi4 Hound	5.00	*** 72014 Lipetsk Top Guns	25.00	TRAVERS Russia (1/72)		AUSTRIA	
72-027 F-18 Hornet	5.00	MAI (1/72)		72-019 MiG-23/27	8.00	Fledpilot Rudolf Palm	6.00
72-028 MiG-25 Foxbat	5.00	DCL-3 Po-2/Yak-6	5.00	72-055 Mirage III	8.00	*** Luftwaffe Losses in Austria	25.00
72-029 A-6E Intruder	5.00	DCL-4 Su-27/Mi-4	5.00	72-058 Korean War	8.00	BELARUS	
72-030 MiG-17 Fresco A	5.00	MAX DECALS		Bell UH-1 (1/48)	5.00	AcroPlan MiG-23	7.00
72-031 Su-17M4 Fitter	5.00	32-001 Exotic Lysanders (Pt.1)	9.00	Ju 88A	2.00	CZECH:	
72-033 Su-17M4R/-22M4	5.00	32-002 Exotic Layanders (Pt.2)	9.00	Yak-38	2.00	Jakab (Czech/English)	
		48-001 Irish AC 1922-1997	8.00	Re.2001	2.00	*** #1 Letov S-328 (I)	30.00
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		48-003 Exotic Lysanders	9.00	A6M2	2.00	*** #3 Avia BH-33	30.00
						*** #5 MiG-15 in Czechoslovakia (I)	30.00
						Reaktivni Letouny, (1965)	10.00
						4+ Publication	



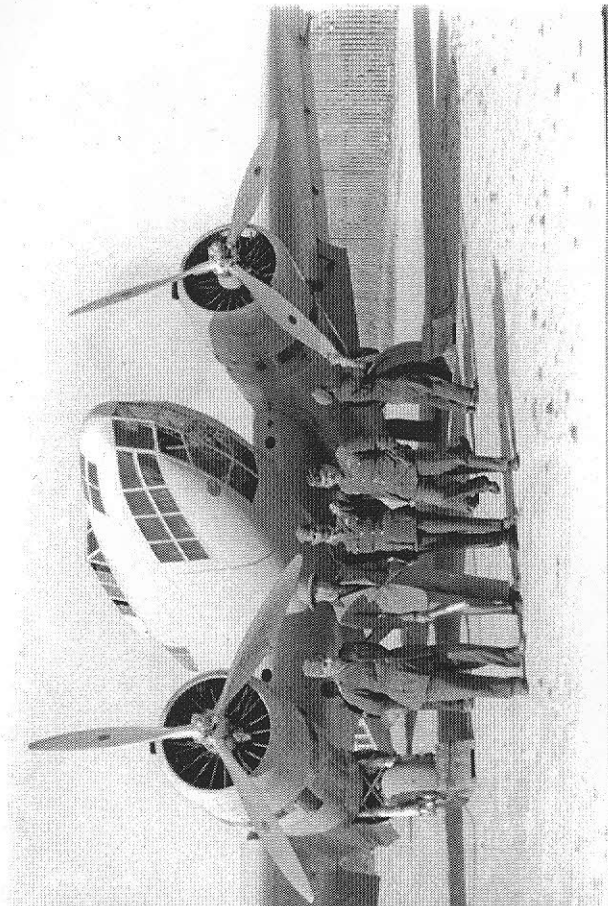
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Ceskoslovenske Letectvi 1918-39	25.00	#30 Samoloty bombowe WWI	8.00	F-4 Phantom	6.00	Air International 6/80	5.00
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M-Hobby		Klub 1:72 (Hurricane, Yak-1, Bf-109)	4.00	Bf-110	8.00	Small Scale Aviator 1/3	5.00
#1 Heinkel He 111	12.00	Dywizjon 303, Fiedler	5.00	MiG-25	8.00	FRANCE	
#2 Griffon Spitfires	12.00	Wojsko Polskie, Kolinski	5.00	Jaguar	5.00	Ciel de Guerre 1,2,7	each 14.00
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MiG-17, Hurricane, Spad	9.00	#11 B-52	7.00	Su-9 to Su-17	10.00	Flieger Revue 11/03, 1/04	6.00
C-2, L-29, Tiger Moth	16.00	Skrzydła w miniaturze		Su-34	18.00	HUNGARY	
ENGLAND:		#1 Piper Cub	6.00	Su-27	15.00	Modell es Makett 2/97	3.00
Profile: Zero	5.00	#4 P-38 Lightning	6.00	Translation for Su-27 above	5.00	ITALY	
GERMANY:		#12 SB2C	6.00	Samolot Yak-55M	16.00	Aerei 2/96 4/96 5/96 6/96	
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der NVA von 1971	15.00	#21 Yak-11	10.00	Sport Aviation	7.00	JAPAN	
Gefechtbereit!	15.00	Wydawnictwo Militaria		WWI Aircraft		1 2/1 2/2 2/3 9/2 10/2	each 4.00
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Sowjetische Flugzeuge, Schmidt	16.00	#110 Focke-Wulf Ta 154	15.00	Yak-9	10.00	POLAND	
Sowjetische Jagdflugzeuge	15.00	RUSSIA:		SWEDEN:		Model Fan 8/02, 2/03	each 7.00
Trans Luft und Raumfahrt	12.00	Aero Fan (Curtiss 75, F-86,		C-130 Production List 1955-xx	10.00	RUSSIA:	
Waffen Arsenal: #97 V-1/Fi-103	6.00	He 129, UH-1, F-5)	8.00	*** C-130 Production List 1955-09	20.00	AC 1/93	5.00
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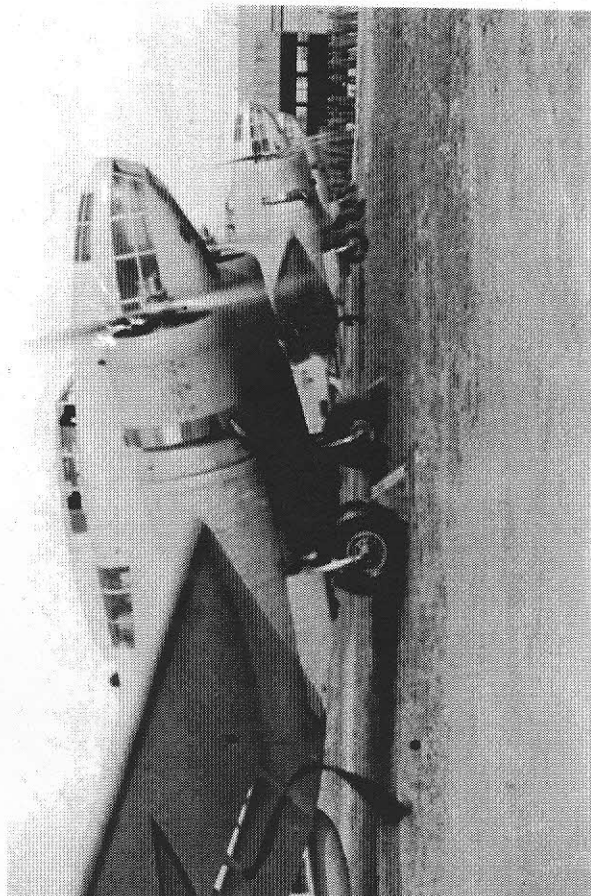
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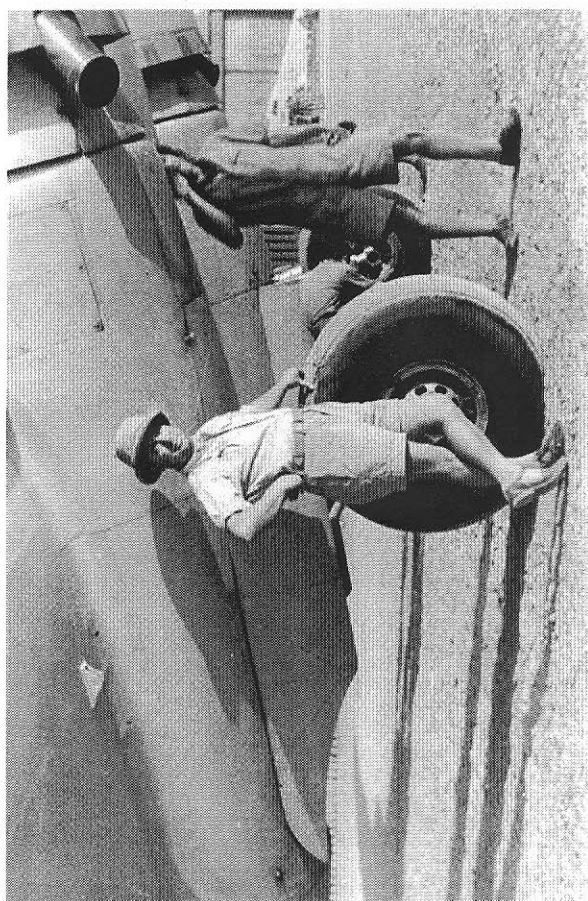
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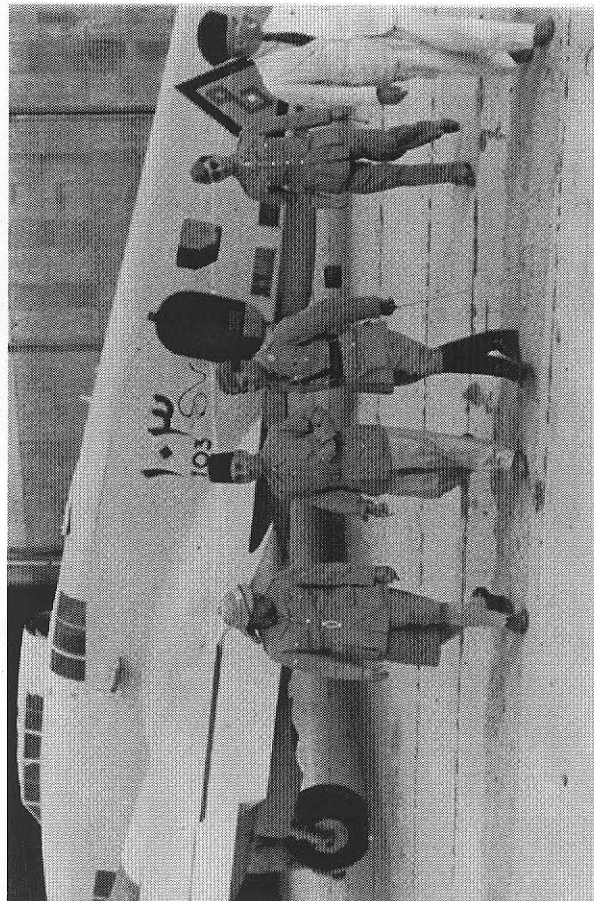
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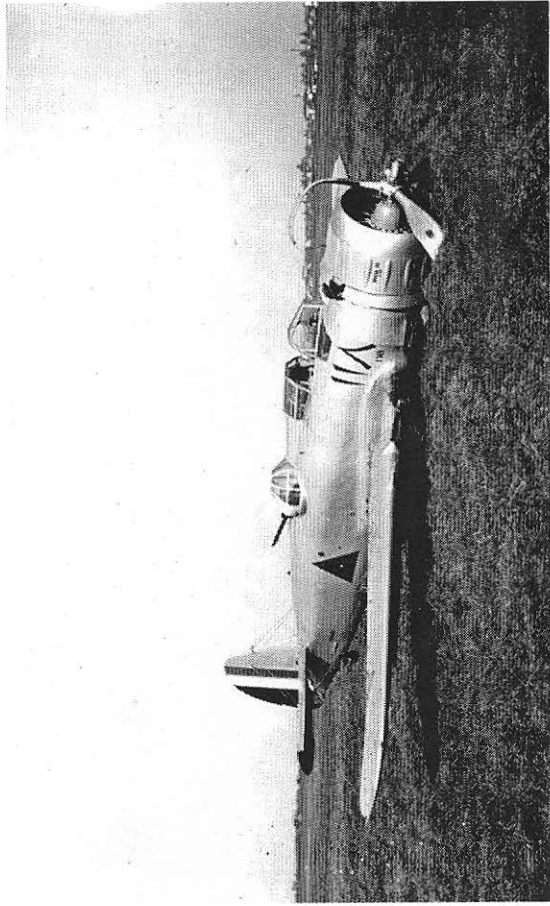


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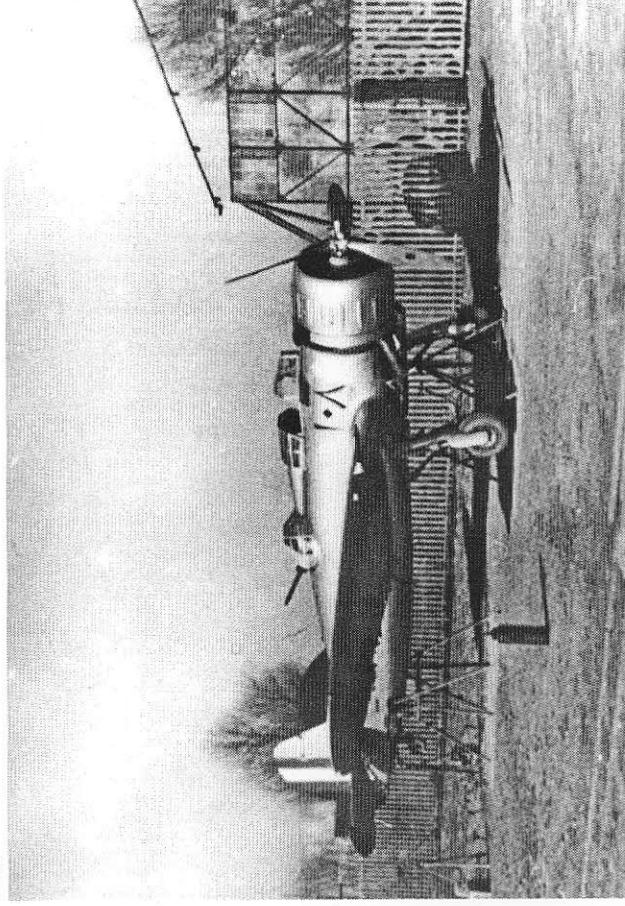


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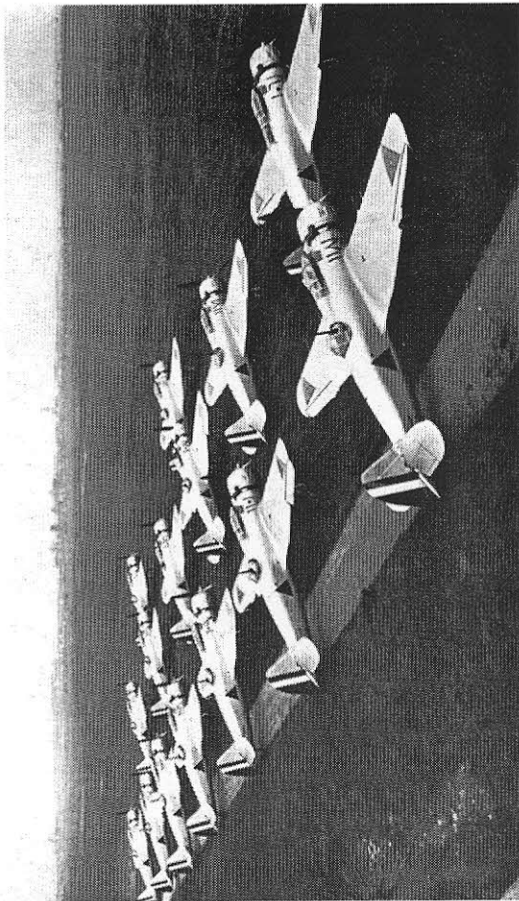




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